

February 18, 2009

Ms. Agnes Farres
California Water Quality Control Board
San Francisco Bay Region
1515 Clay Street, Suite 1400
Oakland, California 94612

Subject: Request for Closure and Transmittal of the
Former Fuel Distribution System ("FDS") Area B Phases II and III Field
Sampling Report and Phase II Closure Report
Presidio of San Francisco - San Francisco, California

Dear Ms. Farres:

This letter requests regulatory closure of 29 Area B Phase II Fuel Distribution System (FDS) segments within the Presidio in San Francisco, California. The enclosed *Former Fuel Distribution System ("FDS") Area B Phases II and II Field Sampling Report and Phase II Closure Report, Presidio of San Francisco, California*, prepared by Erler & Kalinowski, Inc. (EKI) for the Presidio Trust (Trust), documents site sampling and data review activities to support the request for closure.

Based on the data included in the attached report, the Trust is requesting site closure from the Water Board and concurrence that no further action is required at the 29 Area B FDS Phase II segments identified herein. Please call Jen Yata at (415) 561-4272 or me at (415) 561-4259 if you have any questions or require additional information.

Sincerely,

Eileen Fanelli
Environmental Remediation Program Manager

Enclosure

cc: Robert Boggs, DTSC (electronic copy only)
Brian Ullensvang, NPS
Doug Kern, RAB
Mark Youngkin, RAB (without enclosure)
Michelle King, EKI (without enclosure)

20 February 2009

Ms. Jennifer Yata
Presidio Trust
P.O. Box 29052
San Francisco, California 94129-0052

Subject: Fuel Distribution System Area B Phases II and III Field Sampling Report
and Phase II Closure Report
Presidio of San Francisco, California
(EKI A70004.16)

Dear Ms. Yata:

Erler & Kalinowski, Inc. ("EKI") is pleased to present to the Presidio Trust ("Trust") the attached report, entitled *Fuel Distribution System Area B Phases II and III Field Sampling Report and Phase II Closure Report* and dated February 2009 ("FDS Field Sampling Report"), which was prepared in accordance with our contract PT-2006-034.


The purpose of the FDS Field Sampling Report is to evaluate the results of soil sampling and chemical analysis from 35 Phase II and Phase III FDS Sections located in Area B of the Presidio, and to present the rationale for requesting closure of 29 FDS Sections that have met closure criteria on the basis of these results.

Please call if you have any questions.

Very truly yours,

ERLER & KALINOWSKI, INC.


John T. DeWitt, P.E.
Project Engineer


Michelle K. King, Ph.D.
Vice President



*signed
2/20/09*

**Former Fuel Distribution
System (“FDS”) Area B
Phases II and III
Field Sampling Report and
Phase II Closure Report**

**Presidio of San Francisco
California**

February 2009

Prepared By:

**Erler & Kalinowski, Inc.
Burlingame, California**

EKI A70004.16

FUEL DISTRIBUTION SYSTEM AREA B PHASES II AND III FIELD SAMPLING REPORT AND PHASE II CLOSURE REPORT

Presidio of San Francisco, California

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Presidio of San Francisco, California

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FUEL DISTRIBUTION SYSTEM AREA B PHASES II AND III FIELD SAMPLING REPORT AND PHASE II CLOSURE REPORT

Presidio of San Francisco, California

LIST OF ACRONYMS/ABBREVIATIONS

#	Number
> CL	Above Cleanup Levels
< CL	Below Cleanup Levels
<5 CF	Soil cleanup levels for the protection of water quality at Crissy Field, < 5 feet above the highest groundwater (Water Board Order R2-2003-0080, Table 5)
>5 GW	Soil cleanup levels for the protection of water quality at depths > 5 feet above the highest groundwater (Water Board Order R2-2003-0080, Tables 3, 4, 5)
<5 MCL	Soil cleanup levels for the protection of water quality at drinking water standards, < 5 feet above the highest groundwater (Water Board Order R2-2003-0080, Table 4)
Army	U.S. Army Corps of Engineers
BTEX	Benzene, Toluene, Ethylbenzene, and Xylenes
BBL	Blasland, Bouck & Lee, Inc.
bgs	below ground surface
CAP	Corrective Action Plan
Commissary/PX	Commissary / Post-Exchange
CSS	Confirmation Soil Sample
CF	Soil cleanup level for Crissy Field (Water Board Order R2-2003-0080, Table 5)
CL	Cleanup Levels
cy	cubic yards
DOT	Department of Transportation
DTSC	Department of Toxic Substances Control

FUEL DISTRIBUTION SYSTEM AREA B PHASES II AND III FIELD SAMPLING REPORT AND PHASE II CLOSURE REPORT

Presidio of San Francisco, California

LIST OF ACRONYMS/ABBREVIATIONS

Eco-FW	Point of compliance concentrations for soil and water for gasoline and BTEX in surface water and sediments of the proposed freshwater stream (Water Board Order R2-2003-0080, Table 7)
Eco-SW	Point-of-compliance concentrations in soil and water for petroleum hydrocarbons, BTEX, and MTBE for the saltwater protection zone (Water Board Order R2-2003-0080, Table 6)
Eco-T	Soil cleanup levels for the protection of ecologic receptors, terrestrial receptors (Water Board Order R2-2003-0080, Table 2)
EKI	Erler & Kalinowski, Inc.
FDS	Fuel Distribution System
FSP	Field Sampling Plan
ft	feet
GGBHTD	Golden Gate Bridge, Highway, and Transportation District
GGNRA	Golden Gate National Recreational Area
GRC	Geo/Resources Consultants, Inc.
HH-Rec	Soil cleanup levels for the protection of human health, recreational cleanup levels (Water Board Order R2-2003-0080, Table 1)
HH-Res	Soil cleanup levels for the protection of human health, residential cleanup levels (Water Board Order R2-2003-0080, Table 1)
IT	International Technology Corporation
Level I	Level I Decision Criteria
Level II	Level II Decision Criteria
Level III	Level III Decision Criteria
ln ft	linear feet

FUEL DISTRIBUTION SYSTEM AREA B PHASES II AND III FIELD SAMPLING REPORT AND PHASE II CLOSURE REPORT

Presidio of San Francisco, California

LIST OF ACRONYMS/ABBREVIATIONS

LTDD	Low-Temperature Thermal Desorption
Mini-CAP	Miniature Corrective Action Plan
mg/kg	milligrams per kilogram
MW	Montgomery Watson, Inc.
MS/MSD	Matrix Spike/ Matrix Spike Duplicate
NA	Not Applicable
NFA	No Further Action
NPS	National Park Service
PAHs	Polycyclic Aromatic Hydrocarbons
QAPP	Quality Assurance Project Plan
RAB	Restoration Advisory Board
RAP	Remedial Action Plan
SOP	Standard Operating Procedure
SS	Soil Sample
TBD	To Be Determined
TPHd	Total Petroleum Hydrocarbons as diesel
TPHmo	Total Petroleum Hydrocarbons as motor oil
TPHfo	Total Petroleum Hydrocarbons as fuel oil
USA	Underground Services Alert
Water Board	Regional Water Quality Control Board, San Francisco Bay Region

1.0 EXECUTIVE SUMMARY

Erler & Kalinowski, Inc. (“EKI”), on behalf of the Presidio Trust (“Trust”), has prepared this Field Investigation Report for soil sampling and chemical analysis at 125 locations along 31 former fuel distribution system (“FDS”) pipeline sections in Area B of the Presidio. The 125 sample locations were selected by EKI based on data gaps identified during review of the FDS removal report prepared by International Technology Corporation (“IT”) on behalf of the U.S. Army Corps of Engineers (“Army”) (IT,1999).

Closure of 15 of the total of 50 Area B FDS sections was requested in the January 2006 FDS Phase I Closure Report, which was amended by a letter dated 3 October 2008. This report evaluates soil sample results from the remaining 35 Phase II and Phase III FDS Sections located in Area B of the Presidio (samples were collected from 31 FDS sections, and existing data were evaluated for four FDS sections).

The Trust is seeking closure for the following 29 FDS Sections that have met closure criteria, the Phase II (Area B) Closure Group.

BR1-1	BR6-1	BR10-2	BR16-1	MT-13
BR1-2	BR6-3	BR10-3	MT-3	MT-14
BR2-2	BR6-5	BR12-1	MT-5	MT-15
BR3-1	BR7-1	BR13-1	MT-10	MT-16
BR3-2	BR7-2	BR13-2	MT-11	MT-17
BR5-3	BR8-1	BR15-1	MT-12	

The Trust has identified the following FDS Sections with residual petroleum hydrocarbons above applicable cleanup levels in soil or groundwater as the Phase III Closure Group.

BR5-2	MT-6
BR10-1	MT-7
MT-4	MT-9

Additional remedial work associated with the Phase III Closure Group will be addressed through an addendum to the Field Sampling Plan or are being addressed as part of the 1349 Corrective Action Plan (FDS sections MT-6 and MT-7). Separate closure documentation will be prepared for the Phase III Closure Group.

2.0 INTRODUCTION

Erler and Kalinowski, Inc. (“EKI”), on behalf of the Presidio Trust (“Trust”), has prepared this Field Sampling Report for soil sampling and chemical analysis from 125 locations along the former fuel distribution system (“FDS”) pipeline. These sample locations are along 31 FDS sections within Area B with data gaps identified by EKI based on a review of the FDS removal report prepared by International Technology Corporation (“IT”) on behalf of the U.S. Army Corps of Engineers (“Army”) (IT, 1999b). FDS sections in Area A will be addressed in a separate report.

Most of this soil investigation was conducted in October 2007 in general accordance with EKI’s *Field Sampling Plan – Former Fuel Distribution System Closure Phases II and III, Presidio of San Francisco, California* (“FSP”) dated 27 April 2007. The scope of work was also conducted in accordance with the Presidio-wide Quality Assurance Project Plan (“QAPP”) (TTEMI, 2001). The FSP was approved by the Regional Water Quality Control Board, San Francisco Bay Region (“Water Board”) in a letter dated 18 July 2007. Additional work was conducted in August 2008 in accordance with Addendum No. 1 to the FSP (EKI, 2008), which was approved by the Water Board on 11 June 2008. The report also includes a closure request for 29 FDS sections designated as the Area B Phase II closure sections. This report and closure request are prepared in accordance with Task C.12 of the Water Board Order R2-2003-0080 (“the Order”).

2.1 OVERVIEW

During the FDS removal program, the Army divided the FDS into 66 sections. The primary documentation of the removal activities and associated sampling for 60 FDS sections is presented in the three-volume report entitled *Fuel Distribution System Closure Report, Presidio of San Francisco, California*, prepared by IT and dated May 1999. Six additional sections were established by the Army to address sections of FDS pipeline that were historically removed by the Army (prior to the 1930s), with the results of soil investigation activities conducted in 1998 and presented in the report entitled *Additional Investigation of Fuel Distribution Systems* prepared by Montgomery Watson and dated August 1999. Guidelines for the FDS Removal Program were established under Water Board Order No. 96-070. Subsequently, this order was superseded by Water Board Order No. R2-2003-0080, which does not specifically address sampling requirements associated with FDS removals.

On 27 January 2006, the Trust submitted the Closure Certification Report for Phase I FDS sections to the Water Board, and amended by letter on 3 October 2008. This document included 27 FDS sections (12 in Area A, 15 in Area B) where no additional investigative or remedial work was required (Trust, 2006). As a follow-up to the Trust’s Phase I Closure Certification Report, EKI conducted a critical review of the Army’s FDS removal program for the remaining 39 FDS sections (4 in Area A, 35 in Area B) in order to identify locations where data gaps may exist such that criteria for Water Board closure

certification are not met. Based on this critical review, the Trust developed decision logic in order to evaluate the Army FDS removal program and make recommendations to address data gaps found in 30 of the 39 FDS sections not yet submitted to the Water Board for closure. This data gap investigation report includes additional soil investigation activities at 29 of these FDS sections. The remaining 9 sections include BR6-5, CF-4, and CF-12 that were investigated under the Commissary/PX Corrective Action Plan (“CAP”); BR8-1 investigated under the 1065 CAP; MT-6 and MT-7 addressed under the 1349 CAP; and BR13-2, BR15-1, and BR16-1 for which no additional investigation was needed. Although the area of Section BR6-5 is covered under the Commissary/PX CAP, Section BR6-5 will be addressed in this report and submitted for closure.

Additional investigation at one FDS section (MT-14) is addressed in the document entitled *Field Sampling Plan Addendum No. 1 – Former Fuel Distribution System Closure Phases II and III, Infantry Terrace Area* (“FSP Addendum”). The FSP Addendum was submitted to the Water Board on 6 February 2008, approved on 11 June 2008, and was implemented in August 2008. The FDS Section MT-14 in the Infantry Terrace area was approached separately from the other FDS sections due to the large number of underground storage tanks (“USTs”) and a previous overexcavation which was conducted in response to the presence of visibly stained and odorous soil in the area. Based upon review of the data from the August 2008 investigation, the investigation and results of sampling of the USTs in the Infantry Terrace area are being addressed in a separate report. Results for Section MT-14 are included in this report.

Of the 39 FDS sections not submitted for closure, part or all of 4 sections (BR9-1, CF-4, CF-12, and MT-2) are located in Area A. Sections CF-4 and CF-12 are being addressed through the Commissary/PX CAP. All of these Area A Sections are being addressed separately by the Trust and will be discussed in a separate closure report. These 4 sections will not be discussed in this report.

2.2 DOCUMENT ORGANIZATION

Table 1 outlines the general decision criteria (Levels I, II, and III) used to evaluate the FDS sections based on the criterion identified in Water Board Order 96-070. Table 2 provides a detailed summary of the individual Area B FDS sections with documentation of historical information, comparisons to the Level I, II, and III decision criteria, identified data gaps, and rationale for additional sampling (if appropriate). Table 2 includes Area B FDS sections investigated in the FSP. Table 3 provides a sample analysis matrix for soil samples conducted in the implementation of the FSP and shown on Figures 2 through 30. Tables 4 through 6 summarize the laboratory analytical results and Table 7 summarizes all FDS Sections by closure group.

This document includes the following appendices:

- Appendix A presents the decision logic used in the FSP to evaluate data gaps and determine if additional sampling is appropriate;

- Appendix B discusses the field methods used to collect soil samples;
- Appendix C contains a CD with laboratory analytical reports for soil samples collected along the FDS lines;
- Appendix D contains the data validation report;
- Appendix E contains the surveyor's report;
- Appendix F contains relevant historical documents addressing data gaps at selected FDS Sections;
- Appendix G contains a CD with excerpts from the Army's FDS Removal Program Results for sections requested for closure in this report, including text, tables, and figures; and,
- Appendix H contains borehole logs.

3.0 BACKGROUND

Circa 1900, the Army constructed the FDS to supply heating fuel to residential and administrative buildings located throughout the Presidio.

3.1 GENERAL FDS BACKGROUND

The FDS network primarily transported fuel oil to heat buildings. Fuel oil was brought to the Presidio by ship and pumped from the dock located in the Building 900's Area up to a large aboveground storage tank ("AST"), AST 1349, located in the west-central portion of the Presidio. From there, fuel oil was gravity-fed to individual buildings via the FDS pipeline network. The Army's FDS pipeline removal index map (located in front of numbered figures) shows the FDS lines and section names. The FDS pipelines ranged between 2 and 6 inches in diameter. Unnamed lateral pipelines ("laterals") extended off the main pipeline and fed approximately 300 USTs located within or near buildings heated by fuel oil. Additionally, gasoline and diesel were reported to be present in FDS pipelines located within the Crissy Field area, designated with the prefix "CF" (FDS Sections CF-1 to CF-3, CF-6 to CF-7 and CF-11). FDS sections CF-8 to CF-10 likely carried fuel oil.

The Army decommissioned the FDS from the early 1940's through the early 1960's but the piping remained in place. The FDS removal program was conducted from 1996 to 1999 under oversight by the Army under Water Board Order 96-070. Approximately 45,000 feet ("ft") of FDS pipeline were removed. Sections that could not be removed (due to the locations of buildings or other obstructions) were pressure tested and capped at both ends. The removal program included the removal of all accessible lengths of pipeline as well as confirmation soil sampling of the following (IT, 1999b):

- Stockpiled soil was generally to be sampled at a frequency of 50 cubic yards ("cy") per one 4-point composite soil sample for the FDS removal program as a whole, not for each individual FDS section;
- Along trenches where pipeline was removed, soil samples were to be collected from the bottom of the trench at a frequency of 100 linear feet ("lf") per sample and also at the ends of pipeline, at changes in direction, and at intersections with lateral pipeline per Water Board Order 96-070;
- In soil located along lengths of pipeline abandoned in place ("abandoned pipeline"), soil was to be sampled at a frequency of 50 lf per sample per Water Board Order 96-070 as well as at both ends of abandoned pipeline; and
- At sidewalls and bottoms of overexcavations conducted as part of the pipeline removal, soil samples were to be collected at a frequency of 2 samples per 15 lf, with one sample to be collected on either side of the excavation, or at an equivalent frequency of 7.5 lf per sample.

Confirmation soil samples (“CSS”) collected by the Army were generally analyzed on-site using immunoassay procedures, with ten percent of the soil samples sent to a fixed laboratory for confirmation of analytical results. In cases where Army sample results may have potentially been above applicable cleanup levels, the area in the vicinity of the sample was identified as having a data gap. The Army’s results for soil samples potentially above applicable cleanup criteria are posted on the FDS section figures. In cases where the Army sample results were confirmed by the field investigation results, the Army sample results are in bold. Where the results of the current field investigation suggest that the soil impacts are not above applicable cleanup levels, the Army results remain bolded but orange dots are not present.

As part of a remedial measure for petroleum sites presented in Water Board Order 96-070, petroleum-affected soil found to be above discharge requirements was either disposed offsite or treated using Low-Temperature Thermal Desorption (“LTTD”) by heating soil to between 600 and 700 degrees Fahrenheit to volatilize organics (i.e., petroleum hydrocarbons, polycyclic aromatic hydrocarbons (“PAHs”), and benzene, toluene, ethylbenzene, and xylenes (“BTEX”). Stockpiled soil or batches of LTTD-treated soil with sample results below discharge requirements were used to backfill FDS excavations to approximately 18 inches below ground surface (“bgs”), with imported topsoil used to backfill the top 18 inches of trenches or overexcavations. Batches of LTTD-treated soil placed along FDS sections were identified by their postpile number (e.g., POST 37) or their range number, which was a batch of LTTD soil that included several postpiles (e.g., RANGE 17 was composed of POST 059, 082, and 083). Post or range numbers for batches of LTTD-treated soil used to backfill FDS trenches or overexcavations are indicated on the profiles included in the Army’s FDS removal figures (IT, 1999b) (Appendix H). LTTD-treated soil has a distinct dark brown to blackish color that makes it readily distinguishable from native soil and import or stockpiled soil used to backfill trenches subsequent to FDS pipeline removal.

Based on their review of the FDS removal program, in 1999 the Army identified 26 sites along the FDS pipeline that needed additional remedial work and 40 FDS sections where no further action (“NFA”) was required. The Army’s recommendations for remedial work or NFA at the individual FDS sections are identified in Appendix B (Table 2 of the FDS FSP).

3.2 SPECIFIC ISSUES AT FDS SECTION MT-14

FDS Section MT-14, located in the central portion of the Presidio, provided heating fuel to a loop of single-family residential houses and duplexes located along Sibert Loop. Fuel oil was stored in the basement of each house or unit, generally in a 190-gallon UST (MW, 1998a). Fuel oil was used to heat the houses until the early 1960s, when fuel oil was replaced with natural gas. Historic data and results of previous investigations suggested the entire Infantry Terrace and MT-14 FDS Section may be significantly impacted, so this area was considered holistically with both tanks and FDS system in the FSP Addendum No. 1.

3.2.1 Overexcavation No. 7

Due to the presence of visibly stained and odorous soil encountered along the FDS pipeline within the MT-14 site boundary during removal, an overexcavation was conducted in the vicinity of Buildings 340 and 341 (“Overexcavation No. 7”) (see Figure 27). Approximately 1,667 cubic yards of soil was removed during overexcavation activities (IT, 1999b). Further excavation was limited in lateral extent to be within 5 feet of Buildings 340 and 341 to protect the structural integrity of the buildings’ foundations and the vertical extent of the overexcavation was limited by the presence of bedrock. Twenty-six confirmation soil samples were collected from the bottom and sidewalls of Overexcavation No. 7. The results of five soil samples were above applicable cleanup levels in the vicinity of Building 340 and 341. No stained or odorous soil was encountered in the test pit dug immediately east of the overexcavation (IT, 1999b).

3.2.2 Building 340 Basement Waterproofing

As part of restoration activities conducted along FDS Section MT-14 after FDS removal (IT, 1996), an excavation approximately 45 ft long, 8 feet wide, and 6 feet deep was conducted along the eastern wall of Building 340 and a waterproofing membrane was applied to the exterior wall surface (IT, 1999a). Additionally, a 4-inch diameter slotted PVC pipe was installed at the base of the wall to facilitate runoff from the basement wall composite drainage system. Additional excavation activities likely removed a portion of the soil found to be above applicable cleanup levels along the eastern wall of Building 340, including soil in the vicinity of Army sample FM14098W12(5.5).

4.0 DATA GAP ANALYSIS

In preparing the FSP, the Trust conducted a review of available FDS removal data and identified potential data gaps. Using the decision logic presented in Table 1, the results for the various parameters for each FDS section were evaluated. Appendix A contains the summary tables used as a basis for the sampling in FSP. A detailed description of the decision logic was presented in the FSP. Tables 2 and 3 in the FSP and Table 2 in the FSP Addendum summarize the data gap analysis.

5.0 FIELD ACTIVITIES

5.1 PRELIMINARY FIELD ACTIVITIES

A pre-field work site walk was conducted by the Trust and NPS on 10 April 2007 for most of the FDS sections and on 29 July 2008 for FDS Section MT-14 to confirm the planned sampling locations, mark agreed-upon sample locations for Underground Service Alert (“USA”) and Trust locating services, and discuss potential issues associated with utilities, traffic, access, tenants, native plants, special habitats, and historic structures.

Similar to other Trust projects, activities associated with utility clearance (including utility locating), permitting or other regulatory requirements, and coordinating for the Presidio-specific Trust reviews and compliance activities (e.g., N²) were performed and coordinated by the Trust. EKI notified USA of planned sampling events after sample locations had been marked in the field.

5.2 SAMPLE COLLECTION PROCEDURES

FDS sections where soil sampling was conducted are generally shown in green or blue on Figure 1. EKI collected soil samples from 128 sample locations along 29 FDS sections as shown on Figures 2 through 30.

5.2.1 Sample Collection Procedures

Samples were collected in accordance with the field methods and procedures outlined in Appendix B and as specified in Standard Operating Procedures (“SOP”) 001, SOP 009, SOP 013, SOP 014, and SOP 015 of the QAPP. The soil samples were collected using either a hand auger or a direct push drill rig. The depths and corresponding laboratory analyses for soil samples are summarized in Table 3.

For sampling locations intended to be located close to the FDS pipeline, EKI attempted to collect the samples within two feet of the former sampling location. Sampling locations were moved laterally, and within two feet of the former FDS pipeline location, if access limitations were encountered. However, when access limitations precluded EKI from collecting a representative soil sample, EKI discussed the situation with the Trust, and

Water Board to identify an appropriate plan of action. Deviations from the FSP are discussed in Section 6.1.3.

5.2.2 Field Quality Control Samples

Field duplicates for soil samples were collected as part of this investigation and are listed on Table 3.

5.2.3 Sample Naming Convention

FDS section names and lengths were assigned by the Army during design of the removal process. “MT” stands for main trunk, “BR” stands for branch line and “CF” stands for Crissy Field.

The sample naming convention used during this field investigation is consistent with the FDS section names assigned by the Army during FDS removal. Sample names start with the FDS Section name (e.g. MT-13 for FDS Section MT-13). Following the FDS Section name, “SB” is indicated to designate a soil boring location. Multiple samples could be collected from a single soil boring sample location. Samples were identified with feet below ground surface (“ft bgs”) in sample name. In keeping with the QAPP, a soil sample from FDS Section BR10-1 at 2 ft bgs was designated as BR10-1SB01(2.0).

5.2.4 Investigation Derived Wastes

Solid wastes generated during the investigations along the former FDS pipeline were characterized as non-hazardous and were disposed in accordance with applicable regulations by Clearwater Environmental, Inc. on 14 December 2007. Liquid wastes generated during the investigation were placed into the Trust’s water storage tanks, and upon characterization, disposed by the Trust under their wastewater discharge permit. For the 2008 investigation of the Infantry Terrace area, both liquid and solid wastes generated during the investigation were characterized as non-hazardous and were disposed in accordance with applicable regulations by Clearwater Environmental, Inc. on 13 and 15 August 2008, and 13 October 2008.

5.2.5 Analytical Laboratories

Discrete soil samples for chemical analysis were selectively analyzed for one or more of the following analytes using the following methods:

- TPH as diesel (“TPHd”) and TPH as fuel oil (“TPHfo”)¹ with silica gel cleanup by EPA Method 8015M;
- PAHs by EPA Method 8270SIM; and
- BTEX by EPA Method 8260B.

¹ The reported carbon ranges for TPHd and TPHfo are C12 to C24 and C24 to C36, respectively.

All samples were analyzed by Curtis & Tompkins, LTD. of Berkeley, California, a state-certified analytical laboratory.

5.2.6 Data Validation

Data validation was performed by DataVal of Novato, California. DataVal reviewed Level III and Level IV data packages provided by Curtis & Tompkins. All of the data were found to be usable, with some data requiring qualifiers. The data validation report is attached as Appendix D.

5.2.7 Surveying

The final locations and elevations of soil boreholes and wells were surveyed by PLS Surveys, Inc. of Oakland, California, a State of California-licensed land surveyor. The survey included the ground surface elevation and the horizontal coordinates of each sampling location. The survey data are included in Appendix E.

6.0 RESULTS OF FIELD SAMPLING

Observations and analytical results of sampling activities along FDS Sections included in the FDS field investigation are discussed below. The results of historical investigations are discussed in conjunction with recent findings, as appropriate.

6.1 SOIL SAMPLING

Soil sampling was conducted in general accordance with the FSP. Table 3 presents a matrix of the samples collected and analyzed. Tables 4 through 6 present the results of the sampling events. Figures 2 to 30 present the sample locations and results of this soil investigation as well as historical data which was included in the basis for the additional sampling. Borehole logs are presented as Appendix H.

6.1.1 Data Gaps Addressed

Data gaps identified in the FSP were addressed along each FDS Section as summarized in the results column of Table 2. Additional historical documentation of field investigation results by others that address data gaps in the Army FDS Removal program are included as Appendix F.

6.1.2 Observations and Analytical Results

Results and observations of the soil sample collection for this investigation in 2007 and 2008 are summarized in Table 2. Analytical results are presented in Tables 4 through 6. The applicable cleanup levels for each FDS Section are also shown in Tables 4 through 6. A CD with laboratory analytical reports for soil samples collected along the FDS lines is included as Appendix C.

6.1.3 Deviations from the Sampling Plan

The notes on Table 3 describe most of the deviations from the FSP; further detail is provided in the results column of Table 2.

Sampling depths were adjusted based on encountered field conditions. At BR5-25SB04, the presence of shallow bedrock precluded the collection of the second, deeper sample specified in the FSP.

Sample location BR3-2SB01 was moved to 10 feet east of Presidio tree #5231 according to Trust protocols for tree protection. The original excavation extended to within 10 feet of the tree, therefore the exact location of the Army samples was not sampled. However, the soil borehole was able to access any larger impacts to the subsurface as well as to help determine the groundwater elevation at the Site. No groundwater was encountered. Sample BR6-3SB04 was added to the planned sampling program to be within the excavation footprint because the vertical profile borehole was outside the excavation footprint.

Selected soil samples were collected but not analyzed at FDS Sections BR1-2, BR2-2, BR3-1, BR3-2, BR5-2, BR6-3, BR7-1, BR7-2, MT-11, MT-17, and MT-3. In many of these cases, deeper samples were not analyzed because no hydrocarbon staining or odor was detected in shallower soil samples. In other cases, the overburden soil was LTDD-treated soil, not the anticipated stockpile soil backfill. Thus, if LTDD-treated soil was present, there was no need to sample the overburden.

6.2 GROUNDWATER SAMPLING

Four new groundwater monitoring wells were installed in the Infantry Terrace Area (FDS Section MT-14) Area in August and September 2008. Well development was conducted by Blaine Tech under the direction of Treadwell and Rollo in September 2008. Sampling of the wells is being conducted by the Trust in their regular groundwater monitoring program, and sampling results are being reported with the other Trust groundwater data. Only existing wells FM14EX07MW101 and FM14EX07MW102, and new well FM14MW103 are associated with Section MT-14. The other three new wells (338MW101, 339MW101, and 342MW101) are associated with USTs in the Infantry Terrace Area.

6.3 SITE GEOLOGY

Site geology varied across the Presidio. Samples collected within paved areas of the former FDS pipeline trench generally had 6 inches of baserock below the pavement. Brown topsoil was generally encountered from 0.5 to 1.5 feet bgs, and either overburden or LTDD soil was encountered between 1.5 to the bottom of the backfilled trench. In cases where the topsoil overlay the backfilled stockpiled soil, it was often difficult to distinguish the overburden material from the imported topsoil. Similarly, it was often difficult to distinguish between the stockpiled soil used as overburden from the native soil beneath. In these cases, apparent compaction, slight color changes, and changes in soil composition were all used to try to determine the soil type present in the borehole.

Modified borehole logs were prepared specifically for this investigation and are included as Appendix H. Traditional boring logs were used for the MT-14 Area and groundwater monitoring well installation.

6.4 RESULTS OF DATA VALIDATION

Data validation of Level III and Level IV laboratory data packages was performed by DataVal, Inc., of Novato, California, in accordance with the project-specific guidelines outlined in the QAPP. The data were reviewed for holding times, surrogate recoveries, laboratory blanks, MS/MSD, GC/MS tunes, initial calibrations, continuing calibration verification standards, internal standards, field QC samples, and compound identification and quantitation. Overall, DataVal concluded that the data were usable, with the

limitations as indicated by data qualifiers. DataVal's data validation summary reports are included in Appendix D.

7.0 CLOSURE REQUEST AND RECOMMENDATIONS FOR FUTURE WORK

7.1 PHASE I CLOSURE REQUEST

As stated above, 15 FDS sections in Area B were included in the Phase I closure request submitted to the Water Board in 2006. The Trust provided additional data requested by the Water Board in October 2008.

7.2 PHASE II CLOSURE REQUEST

Of the 35 remaining Area B FDS sections included in FDS Closure Phases II and III, 29 FDS sections were found to meet closure criteria as part of Phase II (Area B). These sites and the rationale for the closure are identified in Table 2 and summarized in Table 8. Based on historical and recent data, the Trust requests closure for the 29 FDS sections listed in Table 8.

7.3 RECOMMENDATIONS FOR PHASE III CLOSURE GROUP

Activities to support Phase III work are recommended at four FDS Sections, as identified in Table 2 and summarized in Table 9. The proposed sampling locations or proposed areas of remedial excavation are shown on the corresponding figures of this investigation report. Details for additional investigation will be presented in a separate field sampling plan addendum. Two additional FDS Sections (MT-6 and MT-7) are part of the Phase III closure group because these sections are included as part of the 1349 Corrective Action Plan area.

8.0 REFERENCES

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Table 1
General Decision Criteria for Determination of Additional Work
to be Conducted at Individual Fuel Distribution System Sections

Presidio of San Francisco, California

Level I Decision Criteria

If:

- * Chemical concentrations in confirmation soil samples are above applicable cleanup levels (i.e., TPH, PAHs, or BTEX), ^(a)
- * Chemical concentrations in stockpile soil samples are above applicable cleanup levels for TPH, PAHs, or for BTEX and such stockpiled soil was used as backfill; and/or
- * Chemical concentrations in LTDD treated soil are potentially above applicable cleanup levels and such LTDD-treated soil was used to backfill trenches or excavations,

Then:

- * Collect soil samples or confirmation soil samples to assess horizontal and vertical extent of affected soil.

Else:

- * Go to Level II Criteria.

Level II Decision Criteria ^(b)

If:

- * Removed pipeline confirmation soil sampling frequency was greater than 100 lf/sample;
- * Abandoned pipeline sampling frequency was greater than 50 lf/sample;
- * Overexcavation confirmation soil sampling frequency was greater than 7.5 lf/sample;
- * Confirmation soil samples were not collected at each overexcavation;
- * Stockpile soil sampling frequency was greater than 50 cy/sample where soil was used as backfill ^(c);
- * Abandoned lengths of pipe greater than 20 lf were not pressure tested; and/or
- * Abandoned piping failed pressure testing criterion.

Then:

- * Collect confirmation soil samples as appropriate to address data gaps. The need for sampling is often dictated by the presence of visually contaminated soil or the performance of overexcavation along the FDS section.

Else:

- * Go to Level III Criteria.

If:

- * Potential groundwater impacts may exist (e.g., high chemical concentrations at depths greater than 10 ft bgs where groundwater may be relatively shallow).

Then:

- * Evaluate chemical concentrations as a function of depth at sample location where petroleum hydrocarbons could potentially impact groundwater.

Table 1
General Decision Criteria for Determination of Additional Work
to be Conducted at Individual Fuel Distribution System Sections

Presidio of San Francisco, California

Abbreviations:

BTEX - Benzene, toluene, ethylbenzene, xylenes

cy - cubic yards

FDS - Fuel Distribution System

ft bgs - feet below ground surface

ft - feet

lf - linear feet

LTDD - Low-Temperature Thermal Desorption

PAHs - Polycyclic Aromatic Hydrocarbons

RWQCB - Regional Water Quality Control Board

TPH - Total Petroleum Hydrocarbons

TPHd - Total Petroleum Hydrocarbons quantified as diesel

TPHfo - Total Petroleum Hydrocarbons quantified as fuel oil

Notes:

- (a) Applicable cleanup levels used by the Army were obtained from former RWQCB Order 96-070. The same cleanup levels were incorporated into the current Order for the Presidio, RWQCB Order R2-2003-0080. The current Order also includes cleanup levels for petroleum hydrocarbons and related constituents for sites within the saltwater and freshwater ecological protection zones. Application of the freshwater ecological protection zone values is described in the document prepared by BBL, entitled "Draft Development of Freshwater TPHd and TPHfo Point of Compliance Concentrations, Presidio of San Francisco, California" and dated 15 July 2005.
- (b) Level II Decision Criteria originate from the testing and sampling requirements included in former RWQCB Order 96-070.
- (c) Stockpiled soil potentially used as backfill was overburden soil from the removal of FDS piping. If chemical concentrations in stockpiled soil were greater than applicable cleanup levels, stockpiled soil was supposed to be either treated at the LTDD unit or disposed off-site.

Table 2
Evaluation of Data Gaps in the Fuel Distribution System Removal Program
Presidio of San Francisco, California

FDS Closure Phase Number	FDS Section	Area (A/B)	Level I (1)				Level II (2)							Level III (3)	Remarks Based on Historical Sampling	Results (11)	Trust Recommendations for Closure or Proposed Future Work
			CSS Potentially > CL for individual TPH?	CSS Potentially > CL for individual PAHs?	Stockpile CSS Potentially > CL used as Backfill?	LTTD Potentially in Soil > CL?	Removed Pipeline CSS Frequency > 100 ft/sample? (4)	Abandoned Pipeline Sampling Frequency > 50 ft/sample? (5)	Overexcavation Sampling Frequency > 7.5 ft/sample? (6)	SS at Each Overexcavation?	Stockpile Sampling Frequency > 50 cy/sample or none? (7)	Adequate Pressure Testing? (8)	Pressure Test Failure? (9)	Potential Groundwater Impacts? (10)			
Phase I	Area 5 Section C	B	no	no	no	no	100	NA	NA	NA	NA	NA	NA	no	Soil samples collected along trace of previously removed pipeline (MW, 1999b).	--	Request for closure submitted to Water Board as part of FDS Phase I closure request.
Phase I	Area 5 Section D	B	no	no	no	no	100	NA	NA	NA	NA	NA	NA	no	Soil samples collected along trace of previously removed pipeline (MW, 1999b).	--	Request for closure submitted to Water Board as part of FDS Phase I closure request.
Phase II	BR1-1	B	no	no	no	no	76	53 35	5.0	yes	190 63	no 1 SS	no	no	1.) Stockpiled soil was inadequately sampled and TPH concentrations potentially exceeding cleanup levels (TPH > 100 mg/kg) was transported to LTTD unit for treatment. Trench backfilled with LTTD soil. 2.) Additionally, a 105 ft length of abandoned pipeline was not pressure tested and was inadequately sampled.	1.) Two overburden soil samples and one DUP sample at locations BR1-1SB01 and BR1-1SB03 <CLs for TPH. 2.) One native soil sample at location BR1-1SB02 <CLs for TPH and PAHs.	No Further Action. Section included in FDS Phase II closure request.
Phase II	BR1-2	B	yes no	yes no	no	no	24	NA	5.0	yes	53	NA	NA	no	1.) TPH and PAH concentrations in confirmation soil samples potentially exceed cleanup levels at overexcavations adjacent to Buildings 1206 and 1207. The excavation extents were limited by the adjacent buildings. 2.) The stockpile sampling frequency slightly exceeds 50 cy/sample.	1.) All ten native soil samples and one duplicate sample collected from locations BR1-2SB01 to BR1-2SB06 were <CLs for TPH and cPAHs. 2.) No sampling needed.	No Further Action. Section included in FDS Phase II closure request.
Phase I	BR2-1	B	no	no	no	no	142	NA	NA	NA	130	NA	NA	no	No visibly stained soil was encountered and chemical concentrations in soil samples were all below cleanup levels. Therefore, the low sampling frequency observed in stockpiled soil and removed piping is not likely an issue.	--	Request for closure submitted to Water Board as part of FDS Phase I closure request.
Phase II	BR2-2	B	yes	yes no	no	no	91	48	NA	NA	83	yes	no	no	One soil sample, representative of soil remaining in place, potentially exceeds cleanup levels (> 575 mg/kg TPH and > 5 mg/kg PAHs). Access restrictions due to the presence of Building 1220 were cited as the reason for lack of remediation.	One of two native soil samples collected was >CLs for TPH (TPH = 3,100 mg/kg for sample BR2-2SB02(2.0)). Additional sampling at BR2-2SB02 and BR2-2SB03 restricted by concrete slab at 2 and 1 ft bgs, respectively.	Additional characterization limited by secondary concrete slab. Further excavation of soil with TPH >CLs is limited by Building 1220 foundation. Land use notification for health and safety requirements and soil management requirements is recommended for Site. Section included in FDS Phase II closure request.
Phase I	BR2-3	B	no	no	no	no	40	17	6.3	yes	87	yes	no	no	No visibly stained soil was encountered and chemical concentrations in soil sample were all below cleanup levels and stockpile was disposed offsite. Therefore, the low sampling frequency observed in stockpiled soil is not likely an issue.	--	Request for closure submitted to Water Board as part of FDS Phase I closure request.
Phase II	BR3-1	B	yes no	yes no	no	no	44	56	5.3	yes	20	yes	yes	no	1.) PAH concentrations in confirmation soil samples potentially exceed cleanup levels next to Building 1224. The excavation was limited by the adjacent building. 2.) TPH and PAH concentrations in confirmation soil samples potentially exceed cleanup levels next to Building 1241. The excavation was limited by the adjacent building. 3.) PAH concentrations in confirmation soil samples potentially exceed cleanup levels next to Building 1244. The excavation was limited by the adjacent building. 4.) A 75 ft length of piping beneath Building 1241 failed pressure testing criterion but was sampled at both ends.	1.) Two native soil samples at location BR3-1SB01 next to Building 1224 <CLs for cPAHs. 2.) Two native soil samples at location BR3-1SB02 next to Building 1241 <CLs for TPH and cPAHs. One duplicate sample also <CLs for cPAHs. 3.) Two native soil samples at location BR3-1SB03 next to Building 1244 <CL for cPAHs. 4.) Not applicable.	No Further Action. Section included in FDS Phase II closure request.
Phase II	BR3-2	B	yes no	yes no	no	no	99	NA	3.8	yes	19	NA	NA	no	PAH and TPH concentrations in confirmation soil samples exceed cleanup levels in excavation adjacent to tree #5231. The excavation extent was limited by the tree.	No visual staining observed to 20 ft bgs at location BR3-2SB01, in borehole located ~10 feet east of tree #5231. One native soil sample, BR3-2SB01(9.5) was <CLs for TPH and cPAHs. Depth to groundwater >20 ft bgs.	Further excavation limited by tree. Land use notification for health and safety requirements and soil management requirements recommended in area adjacent to tree only. Section included in FDS Phase II closure request.
Phase I	BR3-3	B	no	no	no	no	65	17	NA	NA	10	yes	no	no	--	--	Request for closure submitted to Water Board as part of FDS Phase I closure request.
Phase I	BR3-4	B	no	no	no	no	53	NA	NA	NA	97	NA	NA	no	No visibly stained soil was encountered and chemical concentrations in soil sample were all below cleanup levels. Therefore, the low sampling frequency observed in stockpiled soil is not likely an issue.	--	Request for closure submitted to Water Board as part of FDS Phase I closure request.
Phase I	BR3-5	B	no	no	NA	no	73	NA	NA	NA	none	NA	NA	no	No stockpile samples collected for 97 cy of stockpiled soil used to backfill trench. Confirmation soil samples in trench were <CLs and no visibly stained soil encountered; no overexcavations conducted. Therefore, the lack of stockpiled soil samples is not likely an issue.	--	Request for closure submitted to Water Board as part of FDS Phase I closure request.
Phase I	BR4-1	B	no	no	no	no	70	20	14.0	yes	50	yes	yes	no	Pipeline failed pressure testing, but was sampled with adequate frequency. The overexcavation was adequately sampled as part of the FDS MT-7 pipeline removal. Therefore, the section appears to be adequately characterized.	--	Request for closure submitted to Water Board as part of FDS Phase I closure request.

Table 2
Evaluation of Data Gaps in the Fuel Distribution System Removal Program
Presidio of San Francisco, California

FDS Closure Phase Number	FDS Section	Area (A/B)	Level I (1)				Level II (2)							Level III (3)	Remarks Based on Historical Sampling	Results (11)	Trust Recommendations for Closure or Proposed Future Work
			CSS Potentially > CL for individual TPH?	CSS Potentially > CL for individual PAHs?	Stockpile CSS Potentially > CL used as Backfill?	LTTD Potentially in Soil > CL?	Removed Pipeline CSS Frequency > 100 ft/sample? (4)	Abandoned Pipeline Sampling Frequency > 50 ft/sample? (5)	Overexcavation Sampling Frequency > 7.5 ft/sample? (6)	SS at Each Overexcavation?	Stockpile Sampling Frequency > 50 cy/sample or none? (7)	Adequate Pressure Testing? (8)	Pressure Test Failure? (9)	Potential Groundwater Impacts? (10)			
Phase III	BR5-2	B	yes	yes	yes	no	77	9	5.0	yes	275 92	yes	no	yes	1.) PAH and TPH concentrations in confirmation soil samples exceed cleanup levels in the vicinity of Building 1328, where access to soil excavation was limited by a gas line. 2.) TPH concentrations may potentially exceed cleanup levels at the lateral near Building 1326. 3.) Additionally, the stockpile sampling frequency is inadequate and uncertainty exists as to whether LTTD soil or stockpiled soil potentially above cleanup levels was used to backfill the trench between Station 9+00 and Station 11+00.	1.) Two of five native soil samples analyzed at locations BR5-2SB01 to BR5-2SB05 were >CLs. The lateral extent of TPH and cPAHs appears to be limited to the north, west, and south. Soil located east of samples BR5-2SB01 to BR5-2SB05, along the FDS pipeline, has TPH >CLs, as corroborated by T&R (2004) samples. Vertical extent to TPH is likely to be limited by shallow serpentine bedrock, which was encountered from 1.5 to 3 ft bgs. 2.) One native and one duplicate soil sample at location BR5-2SB06, at the lateral to Building 1326, was <CLs for TPH. 3.) The overburden soil sample at location BR5-2SB07 was <CLs for TPH and cPAHs. The overburden soil sample at location BR5-2SB08 was >CLs for TPH only (TPHfo = 2,800 mg/kg in sample BR5-2SB08(1.5)). The backfill soil was not LTTD soil.	The depth to groundwater at the Site is anticipated to be approximately 20 to 25 ft bgs and the groundwater gradient is likely to be northwest, based on groundwater information from wells at the Former Landfill 4 Area (T&R, 2007). Additional groundwater investigation is recommended. If groundwater is less than 20 ft bgs, two grab groundwater samples will be collected. If groundwater is greater than 20 ft bgs, the borehole will be abandoned and no groundwater sample will be collected. Implement land use notification for health and safety requirements and soil management requirements.
Phase II	BR5-3	B	no	no	NA	no	84	74 48	5.0	yes	none LTTD	yes	yes 2 SS	no	1.) A 105 ft length of pipeline near Building 1308 and 1310 failed pressure testing criteria and was not sampled at one end. 2.) Significant lengths of lengths of FDS pipeline were abandoned in place due to concerns that the integrity of an adjacent gas line would be compromised. These lengths were deemed inaccessible.	1.) Native soil samples at locations BR5-3SB01 and BR5-3SB02 were <CLs for TPH and cPAHs. 2.) Native soil samples at locations BR5-3SB03 and BR5-3SB04 were <CLs for TPH and cPAHs. 3.) No stockpile samples were collected for 257 cy of stockpiled soil used as backfill. However, the trench was backfilled with LTTD soil, and the remaining trench length was shallow (~2.5 ft bgs) therefore backfill was mainly composed of imported soil (from 0 to 1.5 ft bgs) and no visibly stained soil was observed in the area of trench backfilled with stockpiled soil. No sampling performed due to LTTD soil, not stockpiled soil.	No Further Action. Section included in FDS Phase II closure request.
Phase II	BR6-1	B	no	no	yes NA	no	74	15	4.3	yes	none 44	yes	no	no	No samples were collected from 133 cy of stockpiled soil from an FDS section where visibly stained soil was encountered, based on the presence of overexcavations conducted near Building 325 and between Buildings 326 and 327.	Overburden soil samples at locations BR6-1SB01 to BR6-1SB03 were <CLs for TPH and cPAHs.	No Further Action. Section included in FDS Phase II closure request.
Phase I	BR6-2	B	no	no	no	no	96	NA	NA	NA	119	NA	NA	no	No visibly stained soil was encountered and chemical concentrations in soil samples were all below cleanup levels. Therefore, the low sampling frequency observed in stockpiled soil is not likely an issue.	--	Request for closure submitted to Water Board as part of FDS Phase I closure request.
Phase II	BR6-3	B	yes no	yes no	no	no	46	NA	3.3	yes	50	NA	NA	no	TPH and PAH concentrations in soil samples representative of soil remaining in place potentially exceed cleanup levels at three locations. The excavation extent was limited by Building 101 or the historical sewer. Based on water levels from nearby well 100GW101, the depth of groundwater is anticipated to be more than 50 feet. Therefore, potential impacts to groundwater are unlikely.	1.) Vertical soil profile samples at location BR6-3SB01 were not within excavation footprint. Additional soil borehole BR6-3SB04 was drilled within the excavation footprint. All samples from locations BR6-3SB01 and BR6-3SB04 were <CLs for TPH. 2.) One soil sample at location BR6-3SB02 was <CLs for TPH and cPAHs. 3.) One soil sample at location BR6-3SB03 was <CLs for TPH.	TPH concentrations attenuated with depth. Recommend land use notification for health and safety requirements and soil management requirements. Section included in FDS Phase II closure request.
Phase I	BR6-4	B	no	no	no	no	48	NA	3.8	yes	72	NA	NA	no	No visibly stained soil was encountered and chemical concentrations in soil sample were all below cleanup levels. Therefore, the low sampling frequency observed in stockpiled soil is not likely an issue.	--	Request for closure submitted to Water Board as part of FDS Phase I closure request.
Phase II	BR6-5	B	yes	yes	no	no	44	24	6.2	yes	42	yes	no	yes	A portion of the FDS section is located at the Commissary/PX Site. Chemical concentrations in soil samples representative of soil remaining in place are above cleanup levels. Site was addressed as part of the CAP (T&R, 2005).	--	The Commissary/PX CAP recommended a LUC in this area, which has been implemented. Therefore, no further action is recommended. Section included in FDS Phase II closure request.
Phase II	BR7-1	B	no	no	yes no	no	44	33	NA	NA	204 LTTD/26	yes	no	no	Inadequate number of stockpile soil samples collected and the stockpile soil used as backfill exceeded cleanup levels for PAHs for soil samples .	Overburden soil samples collected for sample locations BR7-1SB01 and BR7-1SB02 were <CLs for PAHs. Overburden soil samples collected from sampling locations BR7-1SB03 to BR7-1SB07 were not analyzed because LTTD soil was used as trench backfill.	No Further Action. Section included in FDS Phase II closure request.
Phase II	BR7-2	B	no	no	yes no	no	81	NA	4.0	yes	none 33	NA	NA	no	No stockpile samples were collected from 66 cy of stockpiled soil at an FDS section where visibly stained soil was encountered and an excavation was conducted.	Overburden soil samples at locations BR7-2SB01alt and BR7-1SB02 were <CLs for TPH and cPAHs.	No Further Action. Section included in FDS Phase II closure request.

Table 2
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Presidio of San Francisco, California

FDS Closure Phase Number	FDS Section	Area (A/B)	Level I (1)				Level II (2)							Level III (3)	Remarks Based on Historical Sampling	Results (11)	Trust Recommendations for Closure or Proposed Future Work
			CSS Potentially > CL for individual TPH?	CSS Potentially > CL for individual PAHs?	Stockpile CSS Potentially > CL used as Backfill?	LTTD Potentially in Soil > CL?	Removed Pipeline CSS Frequency > 100 ft/sample? (4)	Abandoned Pipeline Sampling Frequency > 50 ft/sample? (5)	Overexcavation Sampling Frequency > 7.5 ft/sample? (6)	SS at Each Overexcavation?	Stockpile Sampling Frequency > 50 cy/sample or none? (7)	Adequate Pressure Testing? (8)	Pressure Test Failure? (9)	Potential Groundwater Impacts? (10)			
Phase II	BR8-1	B	No	no	no	no	42	NA	4.4	yes	60	NA	NA	no	FDS section is located at the Building 1065 Site. Army sample FDS1040L03 was potentially above cleanup levels for TPH (TPH > 700 mg/kg). However, MACTEC Sample 1065EX240(3.0), located in the vicinity of Army sample FDS1040L03, was below applicable cleanup levels for TPH (TPHfo = 57 mg/kg and TPHfo <5.7 mg/kg) (MACTEC, 2007).	See Appendix F for analytical results.	No Further Action. Section included in FDS Phase II closure request.
Phase III	BR10-1	B	yes	yes no	no	yes	28	17	7.4	yes	49	yes	no	yes	The FDS Section is within the Freshwater Ecological Protection Zone. 1.) TPH concentrations in two soil samples may potentially exceed freshwater cleanup levels in the overexcavation near Building 220. 2.) Additionally, LTTD-treated soil was used as backfill in three excavations along Halleck Street, and no post-treatment data are available for this soil. 3.) TPH and PAH concentrations in one soil sample exceeds freshwater and other cleanup levels at Building 228, where groundwater may also be potentially affected. However, remediation of soil and potentially affected groundwater near Building 228 is being addressed in the Building 207/231 CAP.	1.) One native soil sample from location BR10-1SB02 was >CLs for TPH (TPHd = 360 mg/kg and TPHfo = 1,700 mg/kg in sample BR10-1SB02(3.0)). One native soil sample from location BR10-1SB03 was <CLs for TPH. 2.) TPHfo was >CLs in overburden soil samples from locations BR10-1SB01 and BR10-1SB05 (TPHfo = 390 mg/kg in sample BR10-1SB01(2.0) and TPHfo = 190 mg/kg in sample BR10-1SB05(2.0)), with CPAHs, and BTEX <CLs for these samples. Overburden samples from locations BR10-1SB06 and BR10SB07 were <CLs for TPH, CPAHs and BTEX. No overburden sample was collected at location BR10-1SB04 because of low recovery due to perched groundwater and sandy soil. 3.) No samples collected.	Although TPH was above FW cleanup criteria in sample BR10-1SB05, no TPH has ever been detected in groundwater samples collected from monitoring well LF6GW106 (located between the overexcavation near Halleck Street and Lincoln Blvd) (T&R, 2007). Therefore, potential groundwater impacts from elevated TPH soil at the overexcavation near the corner of Halleck Street and Lincoln Blvd. are unlikely to impact the freshwater stream. No groundwater data exists to determine potential groundwater impacts to the freshwater stream due to elevated TPH concentrations in soil samples BR10-1SB01, BR10-2SB02, and FB1004W02, which are located in the overexcavation near Building 220. A grab groundwater sample is proposed at location BR10-1SB08 to assess TPH migration potential to the freshwater stream.
Phase II	BR10-2	B	yes	no	NA	no	58	5	NA	NA	none	yes	no	no	The FDS Section is within the Freshwater Ecological Protection Zone. TPH concentration for one confirmation soil sample potentially above freshwater cleanup levels. The stockpile is < 50 cy and no visibly stained soil was encountered (i.e., no overexcavations conducted). Therefore, no additional stockpile sampling is needed.	Native soil sample was >CLs for TPH at location BR10-2SB01 (TPHd = 430 mg/kg and TPHfo = 1,200 mg/kg in sample BR10-2SB01(1.5)).	TPH has never been detected in groundwater samples collected from monitoring well LF6GW106 (T&R, 2007), located downgradient of samples FB1008T03 and BR10-2SB01. Therefore, potential groundwater impacts from elevated TPH in soil at the corner of Lincoln and Halleck Street are unlikely to impact the freshwater stream. No further action is recommended at the Site. Section included in FDS Phase II closure request.
Phase II	BR10-3	B	no	no	yes no	yes no	78	NA	3.0	yes	none 46	NA	NA	no	The FDS Section is within the Freshwater Ecological Protection Zone. LTTD-treated soil used as overexcavation backfill and location is within the freshwater protection zone. Specific chemical data are not available for LTTD-treated soil. Therefore, chemical concentrations may be above freshwater cleanup levels. Stockpile is < 50 cy and the Army did not conduct stockpile sampling. Stained soil was encountered during excavation and an overexcavation was conducted.	1.) No LTTD soil observed at location BR10-3SB01, therefore no sample collected. 2.) Overburden soil sample at location BR10-3SB02 was <CLs for TPH and cPAHs.	No Further Action. Section included in FDS Phase II closure request.
Phase I	BR11-1	B	no	no	no	no	48	NA	NA	NA	18	NA	NA	no	--	--	Request for closure submitted to Water Board as part of FDS Phase I closure request.
Phase II	BR12-1	B	yes no	no	no	no	33	NA	3.0	yes	16	NA	NA	no	TPH concentrations in confirmation soil samples exceed cleanup levels at lateral adjacent to Building 59. The excavation extent was limited by tree adjacent to Building 59.	CSS from locations BR12-1SB01 and BR12-1SB03 were <CLs for TPH and cPAHs. Sample at location BR12-1SB02 not collected due to tree.	Soil above cleanup levels limited in extent, and inaccessible to further excavation due to proximity of Building 59 foundation. Therefore, recommend land use notification for health and safety requirements and soil management requirements. Section included in FDS Phase II closure request.

Table 2
Evaluation of Data Gaps in the Fuel Distribution System Removal Program
Presidio of San Francisco, California

FDS Closure Phase Number	FDS Section	Area (A/B)	Level I (1)				Level II (2)						Level III (3)	Remarks Based on Historical Sampling	Results (11)	Trust Recommendations for Closure or Proposed Future Work	
			CSS Potentially > CL for individual TPH?	CSS Potentially > CL for individual PAHs?	Stockpile CSS Potentially > CL used as Backfill?	LTTD Potentially in Soil > CL?	Removed Pipeline CSS Frequency > 100 ft/sample? (4)	Abandoned Pipeline Sampling Frequency > 50 ft/sample? (5)	Overexcavation Sampling Frequency > 7.5 ft/sample? (6)	SS at Each Overexcavation?	Stockpile Sampling Frequency > 50 cy/sample or none? (7)	Adequate Pressure Testing? (8)	Pressure Test Failure? (9)				Potential Groundwater Impacts? (10)
Phase II	BR13-1	B	yes no	no	no	no	52	35	6.0	yes	126 42	no	no	no	The FDS Section is within the Freshwater Ecological Protection Zone. One confirmation soil sample, representative of soil remaining in place, potentially exceeds cleanup levels for freshwater protection (<1,380 mg/kg at 5 ft bgs). Stockpile soil sampling frequency is > 50 cy and overexcavation was conducted. A 131 ft length of FDS pipeline and associated lateral pipeline between Building 11 and 12 was not pressure tested, but was adequately sampled.	1.) Native soil sample at location BR13-1SB03 was <CLs for TPH and cPAHs. 2.) Overburden soil sample at locations BR13-1SB01 and BR13-1SB02 were <CLs for TPH. Sample at location BR13-1SB02 was soil sample was <CLs for cPAHs. PAH not analyzed at location BR13-1SB01 due to laboratory error. However, based on cPAHs results from samples BR13-1SB02, cPAHs are likely to be <CLs within overburden.	No Further Action. Section included in FDS Phase II closure request.

Table 2
Evaluation of Data Gaps in the Fuel Distribution System Removal Program
Presidio of San Francisco, California

FDS Closure Phase Number	FDS Section	Area (A/B)	Level I (1)				Level II (2)							Level III (3)	Remarks Based on Historical Sampling	Results (11)	Trust Recommendations for Closure or Proposed Future Work
			CSS Potentially > CL for individual TPH?	CSS Potentially > CL for individual PAHs?	Stockpile CSS Potentially > CL used as Backfill?	LTTD Potentially in Soil > CL?	Removed Pipeline CSS Frequency > 100 ft/sample? (4)	Abandoned Pipeline Sampling Frequency > 50 ft/sample? (5)	Overexcavation Sampling Frequency > 7.5 ft/sample? (6)	SS at Each Overexcavation?	Stockpile Sampling Frequency > 50 cy/sample or none? (7)	Adequate Pressure Testing? (8)	Pressure Test Failure? (9)	Potential Groundwater Impacts? (10)			
Phase II	BR13-2	B	yes no	no	no	no	49	NA	2.2	yes	18	NA	NA	no	The FDS Section is within the Freshwater Ecological Protection Zone, but outside the zone of application for freshwater cleanup, and therefore terrestrial cleanup levels are applicable. TPH remaining in soil > CL in the vicinity of Building 748/750 is inaccessible due to the presence of nearby utility lines. Additionally, a Mini-Cap has been conducted in the vicinity of the former UST 748/750, wherein soil and groundwater was not found to be > CLs (MW, 1999a). Appendix F contains the Priority 4 Closure Request for UST 748/750.	--	No Further Action. Section included in FDS Phase II closure request. LUC in place at this location; (Former UST 748/750 and FDS Section BR13-2Area).
Phase I	BR14-1	B	no	no	no	no	76	NA	NA	NA	57	NA	NA	no	No visibly stained soil was encountered and chemical concentrations in soil sample were all below cleanup levels. Therefore, the low sampling frequency observed in stockpiled soil is not likely an issue.	--	Request for closure submitted to Water Board as part of FDS Phase I closure request.
Phase II	BR15-1	B	no	no	no	no	59	4	NA	NA	54	yes	no	no	The FDS Section is within the Freshwater Ecological Protection Zone. No visibly stained soil was encountered and soil samples were all below cleanup levels. Therefore, it is unlikely that chemicals of concern are inadequately characterized due to low sampling frequency observed in stockpiled soil.	--	No Further Action. Section included in FDS Phase II closure request.
Phase II	BR16-1	B	no	no	no	no	20	NA	NA	NA	4	NA	NA	no	--	--	No Further Action. Section included in FDS Phase II closure request.
Phase I	CF-1	B	no	no	no	no	71	NA	NA	NA	42	NA	NA	no	--	--	Request for closure submitted to Water Board as part of FDS Phase I closure request.
Phase I	CF-2	B	no	no	no	no	36	105	NA	NA	7	no	no	no	Pressure testing could not be conducted as pipe was already cut, and one end of pipeline is inaccessible beneath Building 640.	--	Request for closure submitted to Water Board as part of FDS Phase I closure request.
Phase II	MT-3	B	no	yes no	yes	no	62	65	5.0	yes	31	yes	no	yes no	1.) PAH concentrations in soil samples representative of soil remaining in place potentially exceed cleanup levels for PAHs in soil sample FM03021W03. 2.) Stockpile soil is potentially >CLs (concentrations of TPH in 4 out of 8 stockpile samples was TPH > 62.5 mg/kg by immunoassay). 3.) The sampling frequency for abandoned piping was inadequate. However, the abandoned piping is located beneath a portion of Highway 101. This section of freeway is very difficult to access. 4.) Potential groundwater impacts may exist near Building 1299 (TPH < 15,000 mg/kg at 12.5 ft bgs at sample location FM03021W06). Depth to groundwater has been measured at 25 to 30 ft bgs in nearby monitoring well 1213GW101.	1.) One native soil sample from location MT-3SB05 was <CLs for cPAHs. 2.) Seven overburden and one duplicate soil samples from locations MT-3SB01 to MT-3SB04, MT-3SB07, and MT-3SB09 were <CLs for TPH and cPAHs. The overburden sample MT-3SB08(2.0) was >CLs for TPHfo (TPHfo = 2,400 mg/kg). 3.) Not applicable. 4.) No soil staining or odor was observed to 18 ft bgs at location MT-3SB06 and one soil sample collected at 12.5 ft bgs was <CLs for TPH and cPAHs, therefore the lateral extent of soil potentially >CLs at Army sample location FM03021W06(12.5) is likely to be limited. Additional sample collected at 17.5 ft bgs was not analyzed because no staining was observed within borehole. No groundwater was encountered to 17 ft bgs. Therefore, Army sample FM03021W06 is likely to be > 5 feet above groundwater.	Only 1 out of 8 overburden samples was above applicable cleanup levels so affected area appears to be localized to vicinity of sample location MT-3SB08. Implement land use notification for health and safety requirements and soil management requirements. Section included in FDS Phase II closure request.
Phase III	MT-4	B	no	no	yes	no	126	NA	6.4	yes	95 52	NA	NA	no	TPH concentrations in one stockpile soil sample collected at Station 24+00 potentially exceeded cleanup levels (> 62.5 mg/kg) was used as backfill near Station 24+00. IT recommended a soil sample of overburden along trench near Station 24+00. Additionally, soil sample along removed trench and stockpiled soil is inadequate. The groundwater elevation is between 18 and 30 ft bgs, based on the groundwater elevation measured at well 1213GW101 (T&R, 2007).	Overburden soil samples at locations MT-4SB01, MT-4SB02, and MT-4SB04 to MT-4SB06 were <CLs for TPH. The overburden soil samples at location MT-4SB03 was >CLs for TPH (TPHd = 12,000 mg/kg and TPHfo = 12,000 mg/kg for sample MT-4SB03(2.0)).	Excavate soil above applicable cleanup levels for TPH and cPAHs near MT-4SB03.
Phase II	MT-5	B	no	yes no	no	no	85	42	7.1	yes	84	yes	yes 1 SS	no	PAH concentrations in one soil sample (FM05035T02) may potentially exceed cleanup levels (> 5.0 mg/kg). A 140-ft length of pipeline failed pressure testing criteria and had inadequate sampling frequency. Stockpile soil was used as backfill only between Stations 37+00 and 39+00. Stockpile sampling frequency is close to the required frequency.	1.) One native soil sample at location MT-5SB01 was <CLs for cPAHs. 2.) One native soil sample at location MT-5SB02 was <CLs for TPH and cPAHs.	No Further Action. Section included in FDS Phase II closure request.
Phase III	MT-6	B	yes	yes	yes no	no	100	NA	4.8	yes	42	NA	NA	no	Section is located at the Building 1349 Site. Chemical concentrations in soil sample representative of soil remaining in place were found to be above cleanup levels at Station 43 and will be remediated as part of the Building 1349 CAP (BBL, 2006). TPH concentrations in stockpile soil used to backfill between sampling locations FM06041T01 and FM6042T02 may have exceeded the TPH > 100 mg/kg discharge criteria (TPH > 71 mg/kg). This area was investigated as part of the 1349 CAP area and TPH and PAHs concentrations in soil sample 1349SB114/1349SB115 were below cleanup levels (BBL, 2006).	--	Remedial action is being conducted as part of the 1349 CAP. Section will be included in FDS Phase III closure request.
Phase III	MT-7	B	yes	yes	no	no	77	NA	7.3	yes	114	NA	NA	no	Chemical concentrations in soil sample representative of soil remaining in place were found to be above cleanup levels. Remediation of affected soil will be conducted as part of the Building 1349 CAP (BBL, 2006).	--	Remedial action is being conducted as part of the 1349 CAP. Section will be included in FDS Phase III closure request.

Table 2
Evaluation of Data Gaps in the Fuel Distribution System Removal Program
Presidio of San Francisco, California

FDS Closure Phase Number	FDS Section	Area (A/B)	Level I (1)				Level II (2)							Level III (3)	Remarks Based on Historical Sampling	Results (11)	Trust Recommendations for Closure or Proposed Future Work
			CSS Potentially > CL for individual TPH?	CSS Potentially > CL for individual PAHs?	Stockpile CSS Potentially > CL used as Backfill?	LTTD Potentially in Soil > CL?	Removed Pipeline CSS Frequency > 100 ft/sample? (4)	Abandoned Pipeline Sampling Frequency > 50 ft/sample? (5)	Overexcavation Sampling Frequency > 7.5 ft/sample? (6)	SS at Each Overexcavation?	Stockpile Sampling Frequency > 50 cy/sample or none? (7)	Adequate Pressure Testing? (8)	Pressure Test Failure? (9)	Potential Groundwater Impacts? (10)			
Phase I	MT-8	B	no	no	no	no	110	NA	NA	NA	none	NA	NA	no	No visibly stained soil was encountered and chemical concentrations in soil samples were below cleanup levels. Therefore, the low sampling frequency observed in stockpiled soil and removed piping is not likely an issue.	--	Request for closure submitted to Water Board as part of FDS Phase I closure request.
Phase III	MT-9	B	no	no	no yes	no	82	30	4.8	yes	none 37	no	no	no	No stockpile samples were collected from 110 cy of stockpiled soil from a FDS section where visibly stained soil was encountered and an excavation was conducted. Pressure testing was not conducted at one 60 ft length of abandoned pipeline, but both ends were sampled and sampling frequency for abandoned piping is adequate.	CSS at location MT-9SB02 was >CLs for TPH but not cPAHs (TPHd = 830 mg/kg and TPHfo = 1,600 mg/kg in sample MT-9SB02(2.0)). Samples from locations MT-9SB01 and MT-9SB03 were <CLs for TPH and cPAHs.	Collect two additional soil samples to assess lateral extent of TPH >CLs in overburden located in the vicinity of sample location MT-9SB02. Section will be included in FDS Phase III closure request. Potentially implement a land use notification.
Phase II	MT-10	B	yes no	yes no	no	no	91	NA	NA	NA	202	NA	NA	no	CSS representative of soil remaining in place potentially exceeds cleanup levels (> 575 mg/kg TPH and > 5 mg/kg PAHs) at soil sample location FM10068T01. Additionally, IT recommended soil samples of overburden material due to TPH at 130 mg/kg, which is above discharge criteria (> 100 mg/kg) for stockpile soil. However, this TPH concentration is not > CL for TPH remaining in place. Therefore, no additional sampling is recommended for soil above discharge criteria.	Native soil sample at location MT-10SB01 was <CLs for TPH and cPAHs.	No Further Action. Section included in FDS Phase II closure request.
Phase II	MT-11	B	no	no	yes no	no	74	6	NA	NA	69 19	yes	no	no	Total carcinogenic PAH concentrations (< 6.2 mg/kg) potentially exceed cleanup levels in two out of three stockpile soil samples used as backfill. The third stockpile soil sample was not analyzed by the fixed laboratory. Immunoassay results of stockpile soil samples are inconsistent with lab analytical results.	Overburden soil samples at locations MT-11SB01 to MT-11SB08 were < CLs for cPAHs.	No Further Action. Section included in FDS Phase II closure request.
Phase II	MT-12	B	no	no	yes no	no	59	NA	8.0	yes	100 22	NA	NA	no	Total carcinogenic PAH concentrations (< 6.2 mg/kg) in stockpile soil sample used as backfill may exceed applicable cleanup level of 5.6 mg/kg. Stockpile soil sampling frequency was inadequate. Soil samples at overexcavation was very close to acceptable frequency.	CSS at locations MT-12SB01 to MT-12SB04 were <CLs for cPAHs.	No Further Action. Section included in FDS Phase II closure request.
Phase II	MT-13	B	no	no	no yes	no	62	19	8.0	yes	none 37	yes	no	no	No stockpile samples were collected from a FDS section where 74 cy of stockpile soil was used as backfill and visibly stained soil was encountered and an excavation was conducted. Overexcavation confirmation sampling close to required frequency.	The overburden soil sample at location MT-13SB02 was >CLs for TPHfo (TPHfo = 3,000 mg/kg in sample MT-13SB02(3.5)), but not cPAHs. The sample at location MT-13SB01 was <CLs for TPH and cPAHs.	Implement land use notification for health and safety requirements and soil management requirements. Section included in FDS Phase II closure request. The sample is located under an existing road and access for removal is limited by a gas line.

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FDS Closure Phase Number	FDS Section	Area (A/B)	Level I (1)			Level II (2)						Level III (3)		Remarks Based on Historical Sampling	Results (11)	Trust Recommendations for Closure or Proposed Future Work
			CSS Potentially > CL for individual TPH?	CSS Potentially > CL for individual PAHs?	Stockpile CSS Potentially > CL used as Backfill?	LTTD Potentially in Soil > CL?	Removed Pipeline CSS Frequency > 100 ft/sample? (4)	Abandoned Pipeline Sampling Frequency > 50 ft/sample? (5)	Overexcavation Sampling Frequency > 7.5 ft/sample? (6)	SS at Each Overexcavation?	Stockpile Sampling Frequency > 50 cy/sample or none? (7)	Adequate Pressure Testing? (8)	Pressure Test Failure? (9)			
Phase II	MT-14	B	yes	no	26	40	3.7	yes	30	no	yes	yes	yes	(1) Although the overall overexcavation sampling frequency for FDS Section MT-14 was adequate, only one confirmation soil sample was collected for an excavation 30 feet in length near Building 334. (2) Stockpiled soil with PAH concentrations > CL was used as backfill (PAH = 6.8 mg/kg in stockpile samples FM14095S01 and FM14095S02). (3) One soil sample (FM14SB108) collected by GRC in 2005 had TPH concentrations <CLs at 6.5 ft bgs (TPHd = 89 mg/kg and TPHfo = 230 mg/kg), but no samples were collected directly beneath the historical FDS line, at 2.5-3 ft bgs, where the highest concentrations of TPH would be expected and the GRC borehole log showed elevated PID readings. (4) No soil sample was collected at the end of an abandoned lateral at Building 381. (5) Chemical concentrations in CSS representative of soil remaining in place were potentially >CLs for TPH and PAHs at location FM14094L02 (PAHs > 5.0 mg/kg and TPH > 575 mg/kg) and FM14097L01 (TPH < 3,551 mg/kg and PAHs > 5.0 mg/kg). Additional soil sampling by GRC in 2005 adjacent to FM14097L01 (sample FM14SB119 at 1.5 and 3.5 ft bgs) were <CLs for TPH and PAHs. No additional soil sampling was conducted by GRC in the vicinity of sample FM14094L02. (6) No confirmation soil samples were collected at an overexcavation between Building 383 and Building 341. (7) Groundwater impacts from soil exceeding cleanup levels in the vicinity of Building 341 have not been adequately assessed. Soil sample FM14EX07SB101(17.5) had TPH = 3,000 mg/kg, and the vertical extent of TPH within 5 ft of the groundwater elevation has not been assessed. TPH _g and MTBE were detected at concentrations below cleanup levels in groundwater samples collected from wells FM14EX07MW101 and FM14EX07MW102, at a maximum concentration of 9 µg/L and 3.3 µg/L, respectively, in the vicinity of Overexcavation No. 7 (T&R, 2007). Soil samples at Overexcavation No. 7 had TPH and PAHs in CSS >CL, near Building 340 and near Building 341, where soil was inaccessible for further excavation. Additional excavation work (45 ft long, 6 ft deep and 8 ft wide) was completed along the western side of the excavation as part of the basement waterproofing of Building 340, and a portion of the affected soil near Building 340 may have been removed (IT, 1999a).	(1) Three native CSS along the overexcavation west of Building 334 were <CLs for TPH and PAHs. (2) Seven overburden CSS at 1.5 to 2 ft bgs along removed pipeline were <CL for PAHs. (3) Native CSS at 2.5 ft bgs in the vicinity of GRC soil sample location FM14SB108 was <CL for TPH. (4) Soil sample MT-14SB07, at 2.5 ft bgs at the end of the abandoned lateral was <CLs for TPH and PAHs. (5) Vertical extent of affected soil at Army sample location FM14094L02 assessed by collecting one native CSS at 2 ft bgs and one native SS at 7 ft bgs; both samples were <CLs for TPH and PAHs. (6) CSS at the base of the overexcavation, assumed to be approximately 3.5 ft bgs, between Building 341 and Building 383 were <CLs for TPH and PAHs. (7) One groundwater monitoring well (FM14MW103) downgradient of soil at Overexcavation No. 7 was installed; this well is included in the Presidio-wide groundwater monitoring program. No petroleum hydrocarbons were detected in groundwater samples from this well.	No Further Action. Section included in FDS Phase II closure request.
Phase II	MT-15	B	yes	no	no	no	53	35 25	4.1	yes	35	yes	yes 3 SS	A 167-ft length of abandoned pipeline failed pressure testing, was grouted, and sampled at both ends. Approximately 75 ft of the abandoned pipe length is located beneath Building 45. However, the remaining portion of the pipeline appears to be accessible and was not sampled. A 24-ft section of pipeline located beneath a tree failed pressure testing, and was not sampled at both ends. Additionally, IT recommended soil samples of overburden material due to TPH exceeding the 100 mg/kg discharge criterion (TPH = 280 mg/kg). However, TPH concentrations are not above applicable cleanup levels and no sampling is recommended in the overburden. Depth to water at Site was found to be ~39 ft bgs at the adjacent Building 42 (GRC, 2003).	The native soil sample at location MT-15SB02 and its duplicate were >CLs for TPH (TPH _d = 1,700/1,300 mg/kg and TPH _{fo} = 5,300/4,000 mg/kg in sample MT-15SB02(3.5) and its respective duplicate (DUP-3-100107)). Additionally, the detection limit for all carcinogenic PAHs was elevated (< 7 mg/kg) and total PAH may potentially be above cleanup levels. Native soil sample at locations MT-15SB01 and MT-15SB03TPH were <CLs for TPH and cPAHs. Because the depth to groundwater at the Site is approximately 39 ft bgs (GRC, 2002), groundwater at the Site is not likely to be impacted.	Groundwater impacts are unlikely, as depth to water at the Site is approximately 39 ft bgs. Also, given the fact that the FDS line connecting Buildings 45 and 42 passes above a historical excavation area in which 16 samples were <CULs for TPH, the chances of impact from the FDS line under Building 45 are minimal. Implement land use notification for health and safety requirements and soil management requirements. Section included in FDS Phase II closure request.
Phase II	MT-16	B	no	no	yes no	no	35	59	NA	NA	20 15	no	no	TPH and PAH concentrations (> 62.5 mg/kg TPH and > 1 mg/kg PAHs) in a portion of stockpiled soil was likely used as trench backfill. Abandoned lengths of lateral piping adjacent to Buildings 11 through 16 were not pressure tested but were sampled at a frequency very close to the acceptable frequency.	The overburden samples from locations MT-16SB01 to MT-16SB03 were <CLs for TPH and cPAHs.	No Further Action. Section included in FDS Phase II closure request.
Phase II	MT-17	B	no	no	yes	no	33	23 20	4.8	yes	190 19	yes 1 SS	no	An inadequate number of stockpile soil samples were collected and chemical concentrations in one stockpile soil sample potentially exceeded cleanup levels (TPH > 100 mg/kg). Additionally, pressure testing was not conducted for a 75 ft length of abandoned piping. The soil samples from the overexcavation was very close to acceptable frequency. This abandoned pipeline was deemed inaccessible due to the presence of trees and utility lines.	1.) The overburden from location MT-17SB08 was >CLs for TPH _d (TPH _{fo} = 2,300 mg/kg in sample MT-17SB08(2.0)), but not cPAHs. Overburden samples from locations MT-17SB01, MT-17SB02, MT-17SB04 to MT-17SB07, and MT-17SB09 to MT-17SB10 were <CLs for TPH. 2.) The native The soil samples at location MT-17SB03 was <CLs for TPH and cPAHs.	Given the fact that only one sample out of the 11 samples taken along MT-17 is >CL for TPH _{fo} , while the remaining 10 are <85 mg/kg, implement land use notification for health and safety requirements and soil management requirements. Section included in FDS Phase II closure request.

Table 2
Evaluation of Data Gaps in the Fuel Distribution System Removal Program
Presidio of San Francisco, California

Legend
Does not meet selected criteria subsequent to Field Sampling Plan implementation or additional remedial work conducted by Trust or Army.

Abbreviations:	ft - feet
# - number	ft bgs - feet below ground surface
> CL - above cleanup levels	FSP - Field Sampling Plan
< CL - below applicable cleanup levels	GGBHTD - Golden Gate Bridge, Highway and Transportation District
Army - U.S. Army Corps of Engineers	IT - International Technology Corporation
BTEX - benzene, toluene, ethylbenzene, xylenes	lf - linear feet
CAP - Corrective Action Plan	LTTD - low temperature thermal desorption
Commissary/PX - Commissary Post-Exchange	NA - not applicable
cPAHs - total carcinogenic polycyclic aromatic hydrocarbons	NFA - no further action
CSS - confirmation soil samples	PAHs- polycyclic aromatic hydrocarbons
cy - cubic yard	RAP- Remedial Action Plan
DUP - duplicate	SS - soil sample
EKI - Erler & Kalinowski, Inc.	T&R - Treadwell & Rollo, Inc.
FDS - fuel distribution system	TPH - total petroleum hydrocarbons
	TPHd - total petroleum hydrocarbons as diesel
	TPHfo - total petroleum hydrocarbons as fuel oil

- Notes:
- (1) Additional soil sampling is required for all FDS sections which fail any portion of Level I Decision Criteria (except at FDS sections where additional sampling was performed as part of a CAP or Mini-CAP). Applicable cleanup levels for each Phase II FDS section are shown on the respective figure. Changes to this table from the FSP based on the results of the field sampling are shown by striking out previous data and replacing with revised data.
 - (2) Additional soil sampling may be required for FDS sections which fail any portion of Level II Decision Criteria. Changes to this table from the FSP based on the results of the field sampling are shown by striking out previous data and replacing with revised data.
 - (3) An assessment of soil concentration as a function of depth or groundwater sampling is required for FDS sections which fail Level III Decision Criteria, and where additional sampling is not being conducted as part of a CAP or Mini-CAP. Where two values are indicated, the first value indicated the results before FSP implementation and the second value indicates the result after FSP implementation.
 - (4) Former Water Board Order 96-070 required a sampling frequency of 100 lf/sample of pipeline removed, including one confirmation soil sample at each end of the removed length of pipeline, one confirmation soil sample at each change in pipeline direction, and one confirmation soil sample at each intersection of the FDS pipeline with lateral piping. CSS collected at a sampling frequency > 100 lf/sample for lengths of removed pipeline are highlighted in gray. Additional soil sampling conducted in native soil along lengths of former FDS pipeline as part of the FSP implementation is included in the reported sampling frequency.
 - (5) Former Water Board Order 96-070 required a sampling frequency of 50 lf/sample for lengths of accessible abandoned piping. If the piping was inaccessible for sampling, the Army generally collected samples at both ends of abandoned piping. CSS collected at a sampling frequency > 50 lf/sample are highlighted in gray. Additional soil sampling conducted in native soil along lengths of abandoned FDS pipeline as part of the FSP implementation is included in the reported sampling frequency.
 - (6) The Army planned to sample overexcavation lengths at a frequency of 7.5 lf/sample. Fields highlighted in gray indicate a sampling frequency of > 7.5 lf/sample. Additional soil sampling of native soil in the vicinity of the overexcavation during the FSP implementation is accounted for in the overall sampling frequency reported.
 - (7) The Army recommended confirmation soil sampling for stockpiled soil at a frequency of 50 cy/sample. FDS sections where stockpiled soil was not sampled are indicated as "none". FDS sections where > 50 cy of stockpiled soil were generated and no samples were collected or FDS sections where the sampling frequency of stockpiled soil was > 50 cy/sample are highlighted in gray. Additionally, FDS sections where no soil samples were collected and < 50 cy of stockpiled soil were generated but visually stained soil was found along the FDS section (as indicated by the presence of overexcavations) are highlighted in gray. Additional sampling of the overburden during FSP implementation supplements the stockpile sampling frequency, with one overburden stockpile sample equivalent to one 4-point composite stockpile sample.
 - (8) Prior to November 1996, the Army performed pressure testing on lengths of abandoned pipeline > 50 lf and collected confirmation soil samples at a frequency of 50 lf/sample of abandoned piping. Subsequently, this provision was amended and pressure testing was recommended for abandoned lengths of FDS pipeline > 20 lf, with soil samples collected from all exposed ends of abandoned piping. Grouting of all abandoned lengths of FDS pipeline was also recommended. FDS sections where lengths of abandoned piping > 50 lf were pressure tested are considered to have met the decision criteria and are indicated as "yes", otherwise "no" is indicated and the cell is highlighted in gray.
 - (9) FDS sections where lengths of abandoned piping > 50 lf failed pressure testing are indicated as "yes" and highlighted in gray, otherwise "no" is indicated.
 - (10) Potential groundwater impacts are based on the presence of significantly affected soil at depth (e.g., > 10 ft bgs), where the reported groundwater at the Site is generally within 15 ft of the affected soil.
 - (11) For the purposes of this investigation, "overburden" refers to the soil that was excavated by the Army as part of the FDS removal program and was used as trench backfill. "Native" refers to soil that was not excavated by the Army as part of the FDS removal and remediation activities.

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TABLE 3
SUMMARY OF SAMPLE ANALYSES MATRIX

Presidio of San Francisco
San Francisco, California

Sample_ID (note 1)	Sample Date	Status	TPHd	TPHfo	PAHs	BTEX
FDS Section BR1-1						
BR1-1SB01(2.0)	9/24/2007		X	X		
DUP-1-092407	9/24/2007		X	X		
BR1-1SB02(4.5)	9/24/2007		X	X	X	
BR1-1SB03(2.0)	9/27/2007		X	X		
FDS Section BR1-2						
BR1-2SB01(3.0)	9/24/2007		X	X	X	
BR1-2SB01(6.5)	9/24/2007		X	X	X	
BR1-2SB02(3.0)	9/24/2007		X	X	X	
BR1-2SB02(6.5)	9/24/2007		X	X	X	
BR1-2SB03(6.5)	9/24/2007		X	X	X	
BR1-2SB04(3.0)	9/24/2007		X	X	X	
BR1-2SB04(6.5)	9/24/2007		X	X	X	
DUP-3-092407	9/24/2007		X	X	X	
BR1-2SB05(6.0) (note 2)	9/24/2007	Hold				
BR1-2SB05(6.5)	9/24/2007		X	X	X	
BR1-2SB05(9.0)	9/24/2007		X	X	X	
BR1-2SB06(6.5)	9/24/2007		X	X	X	
FDS Section BR2-2						
BR2-2SB01(3.0)	10/9/2007		X	X	X	
BR2-2SB02(2.0)	10/9/2007		X	X	X	
BR2-2SB02(2.5) (note 3)	10/9/2007	Hold				
BR2-2SB03 (note 3)	--	NS				
FDS Section BR3-1						
BR3-1SB01(3.0)	9/25/2007				X	
BR3-1SB01(6.0)	9/25/2007				X	
BR3-1SB02(2.0) (note 2)	9/25/2007	Hold				
BR3-1SB02(5.0)	9/25/2007		X	X	X	
BR3-1SB02(10.0)	9/25/2007		X	X	X	
DUP-2-092507	9/25/2007		X	X	X	
BR3-1SB03(4.0) (note 2)	9/25/2007	Hold				
BR3-1SB03(5.5)	9/25/2007				X	
BR3-1SB03(10.0)	9/25/2007				X	
FDS Section BR3-2						
BR3-2SB01(9.5)	9/26/2007		X	X	X	
BR3-2SB01(14.5) (note 4)	9/26/2007	Hold				
BR3-2SB01(19.5) (note 4)	9/26/2007	Hold				
FDS Section BR5-2						
BR5-2SB01(2.5)	9/24/2007		X	X	X	
BR5-2SB02(1.0)	9/28/2007		X	X	X	
BR5-2SB03(2.5)	9/28/2007		X	X	X	
BR5-2SB04(2.0) (note 2)	9/28/2007	Hold				
BR5-2SB04(3.0)	9/28/2007		X	X	X	
BR5-2SB05(2.5)	9/24/2007		X	X	X	
BR5-2SB06(2.5)	9/24/2007		X	X		
DUP-2-092407	9/24/2007		X	X		
BR5-2SB07(1.5)	9/24/2007		X	X	X	
BR5-2SB08(1.5)	9/28/2007		X	X	X	

TABLE 3
SUMMARY OF SAMPLE ANALYSES MATRIX

Presidio of San Francisco
San Francisco, California

Sample_ID (note 1)	Sample Date	Status	TPHd	TPHfo	PAHs	BTEX
FDS Section BR5-3						
BR5-3SB01(2.5)	9/25/2007		X	X	X	
BR5-3SB02(2.5)	9/25/2007		X	X	X	
BR5-3SB03(2.5)	9/25/2007		X	X	X	
BR5-3SB04(2.5)	9/25/2007		X	X	X	
FDS Section BR6-1						
BR6-1SB01(1.5)	9/25/2007		X	X	X	
DUP-1-092507	9/25/2007		X	X	X	
BR6-1SB02(1.5)	9/25/2007		X	X	X	
BR6-1SB03(1.5)	9/28/2007		X	X	X	
FDS Section BR6-3						
BR6-3SB01(10.0)	9/26/2007		X	X		
BR6-3SB01(15.0) (note 4)	9/26/2007	Hold				
BR6-3SB01(20.0) (note 4)	9/26/2007	Hold				
BR6-3SB02(2.5)	9/26/2007		X	X	X	
BR6-3SB03(2.5)	9/26/2007		X	X		
BR6-3SB03(3.0) (note 2)	9/26/2007	Hold				
BR6-3SB04(12.0)	9/27/2007		X	X		
BR6-3SB04(17.0)	9/27/2007		X	X		
BR6-3SB04(19.5) (note 4)	9/27/2007	Hold				
FDS Section BR7-1						
BR7-1SB01(1.5)	9/28/2007				X	
BR7-1SB02(1.5)	9/28/2007				X	
BR7-1SB03(1.5) (note 5)	9/28/2007	Hold				
BR7-1SB04(1.5) (note 5)	9/27/2007	Hold				
BR7-1SB05(1.5) (note 5)	9/27/2007	Hold				
DUP-2-092707 (note 6)	9/27/2007	Hold	+	+		
BR7-1SB06(1.5) (note 5)	9/28/2007	Hold				
FDS Section BR7-2						
BR7-2SB01(1.5)	10/9/2007		X	X	X	
BR7-2SB01(1.5) (note 7)	9/28/2007	Hold				
BR7-2SB02(1.5)	9/28/2007		X	X	X	
DUP-2-092807	9/28/2007		X	X	X	
FDS Section BR10-1						
BR10-1SB01(2.0)	9/27/2007		X	X	X	X
BR10-1SB02(3.0)	9/27/2007		X	X		
BR10-1SB03(3.0)	9/26/2007		X	X		
BR10-1SB04 (note 8)	--	NS				
BR10-1SB05(2.0)	10/1/2007		X	X	X	X
BR10-1SB06(2.0)	10/1/2007		X	X	X	X
DUP-3-100107	10/1/2007		X	X	X	X
BR10-1SB07(2.0)	10/1/2007		X	X	X	X

TABLE 3
SUMMARY OF SAMPLE ANALYSES MATRIX

Presidio of San Francisco
San Francisco, California

Sample_ID (note 1)	Sample Date	Status	TPHd	TPHfo	PAHs	BTEX
FDS Section BR10-2						
BR10-2SB01(3.0)	10/9/2007		X	X		
FDS Section BR10-3						
BR10-3SB01 (note 8)	--	NS				
BR10-3SB02(1.5)	9/26/2007		X	X	X	
FDS Section BR12-1						
BR12-1SB01(2.0)	9/24/2007		X	X		
BR12-1SB02 (note 9)	--	NS				
BR12-1SB03(5.5)	9/24/2007		X	X		
FDS Section BR13-1						
BR13-1SB01(2.0) (note 10)	9/28/2007		X	X	○	
BR13-1SB02(2.0)	9/26/2007		X	X	X	
BR13-1SB03(5.0)	10/1/2007		X	X		
FDS Section MT-3						
MT-3SB01(2.5)	9/28/2007		X	X	X	
MT-3SB01(4.0) (note 2)	9/28/2007	Hold				
MT-3SB02(2.5)	9/28/2007		X	X	X	
MT-3SB03(2.0)	9/28/2007		X	X	X	
MT-3SB04(2.0)	9/28/2007		X	X	X	
DUP-1-092807	9/28/2007		X	X	X	
MT-3SB05(4.0)	9/28/2007				X	
MT-3SB06(12.5)	9/25/2007		X	X	X	
MT-3SB06(17.5) (note 4)	9/25/2007	Hold				
MT-3SB07(2.0)	9/28/2007		X	X	X	
MT-3SB08(2.0)	9/28/2007		X	X	X	
MT-3SB09(2.0)	9/28/2007		X	X	X	
FDS Section MT-4						
MT-4SB01(2.0)	9/25/2007		X	X		
MT-4SB02(2)	9/24/2007		X	X		
MT-4SB03(2.0)	9/24/2007		X	X		
MT-4SB04(2.0)	9/24/2007		X	X		
MT-4SB05(2.0)	9/24/2007		X	X		
MT-4SB06(2.0)	9/24/2007		X	X		

TABLE 3
SUMMARY OF SAMPLE ANALYSES MATRIX

Presidio of San Francisco
San Francisco, California

Sample_ID (note 1)	Sample Date	Status	TPHd	TPHfo	PAHs	BTEX
FDS Section MT-5						
MT-5SB01(4.5)	9/24/2007				X	
MT-5SB02(9.5)	9/25/2007		X	X	X	
FDS Section MT-9						
MT-9SB01(2.0)	10/1/2007		X	X	X	
MT-9SB02(2.0)	10/1/2007		X	X	X	
MT-9SB03(2.0)	10/1/2007		X	X	X	
DUP-1-100107	10/1/2007		X	X	X	
FDS Section MT-10						
MT-10SB01(0.5)	10/5/2007		X	X	X	
FDS Section MT-11						
MT-11SB01(2.0)	10/5/2007				X	
MT-11SB02(2.0)	10/5/2007				X	
MT-11SB03(2.0)	10/5/2007				X	
MT-11SB04(2.0)	10/5/2007				X	
MT-11SB05(2.0)	10/5/2007				X	
MT-11SB06(1.5)	10/5/2007				X	
MT-11SB06(2.0) (note 2)	10/5/2007	Hold				
MT-11SB07(2.0)	10/5/2007				X	
DUP-1-100507	10/5/2007				X	
MT-11SB08(2.0)	10/5/2007				X	
FDS Section MT-12						
MT-12SB01(2.0)	10/5/2007				X	
MT-12SB02(2.0)	10/9/2007				X	
MT-12SB03(2.0)	9/25/2007				X	
MT-12SB04(2.0)	9/25/2007				X	
FDS Section MT-13						
MT-13SB01(2.0)	10/1/2007		X	X	X	
DUP-2-100107	10/1/2007		X	X	X	
MT-13SB02(2.0)	9/26/2007		X	X	X	
FDS Section MT-14						
MT-14SB01(2.5)	8/11/2008		X	X	X	
DUP1-081108	8/11/2008		X	X	X	
MT-14SB02(2)	8/11/2008		X	X	X	
MT-14SB03(2)	8/11/2008		X	X	X	
MT-14SB04(1.5)	8/11/2008		X	X	X	
MT-14SB05(2.5)	8/12/2008		X	X	X	
MT-14SB06(2.5)	8/11/2008		X	X	X	
MT-14SB07(2.5)	8/13/2008		X	X	X	
MT-14SB08(1.5)	8/12/2008		X	X	X	
MT-14SB09(2.5)	8/12/2008		X	X	X	
MT-14SB09(7)	8/12/2008		X	X	X	
MT-14SB10(1.5)	8/11/2008		X	X	X	
MT-14SB11(1.5)	8/11/2008		X	X	X	
MT-14SB12(3.5)	8/12/2008		X	X	X	
MT-14SB13(1.5)	8/11/2008		X	X	X	
MT-14SB14(1.5)	8/11/2008		X	X	X	

TABLE 3
SUMMARY OF SAMPLE ANALYSES MATRIX

Presidio of San Francisco
San Francisco, California

Sample_ID (note 1)	Sample Date	Status	TPHd	TPHfo	PAHs	BTEX
FDS Section MT-15						
MT-15SB01(2.5)	9/25/2007		X	X	X	
MT-15SB02(3.5)	9/28/2007		X	X	X	
DUP-3-092807	9/28/2007		X	X	X	
MT-15SB03(3.5)	9/28/2007		X	X	X	
FDS Section MT-16						
MT-16SB01(1.5)	9/26/2007		X	X	X	
MT-16SB02(1.5)	9/26/2007		X	X	X	
MT-16SB03(1.5)	9/26/2007		X	X	X	
FDS Section MT-17						
MT-17SB01(2.0)	9/27/2007		X	X		
MT-17SB02(2.0)	9/27/2007		X	X		
DUP-1-092707	9/27/2007		X	X		
MT-17SB03(2.5) (note 2)	9/27/2007	Hold				
MT-17SB03(3.5)	9/27/2007		X	X	X	
MT-17SB04(1.5)	9/27/2007		X	X		
MT-17SB05(2.0)	9/27/2007		X	X		
MT-17SB06(2.0)	9/27/2007		X	X		
MT-17SB07(2.0)	9/27/2007		X	X		
MT-17SB08(2.0)	9/27/2007		X	X		
MT-17SB09(2.0)	9/27/2007		X	X		
MT-17SB10(2.0)	9/27/2007		X	X		

TABLE 3
SUMMARY OF SAMPLE ANALYSIS MATRIX

Presidio of San Francisco
San Francisco, California
(A70004.16)

Notes:

- (1) Sampling depths were adjusted from those proposed in the field sampling plan based on encountered field conditions. The rationale for samples which were either not analyzed or where no sample was collected are explained in the notes.
- (2) Sample from proposed depth was collected but not analyzed.
- (3) A second concrete slab at 1.5 to 2 ft bgs prevented sampling at the proposed depth or sample location.
- (4) No staining or odor were observed in sample analyzed from depth higher than this soil sample. Therefore this soil sample was not analyzed for COCs.
- (5) Soil samples from overburden were identified as LTTD soil. Therefore, soil sample was not analyzed because it was not soil.
- (6) Hold requested on samples. Sample was analyzed for TPH due to lab error.
- (7) Initial sample collected in LTTD soil within overexcavation, alternate location was sampled in location outside of initial excavation.
- (8) Low sample recovery prevented sample collected.
- (9) Sample location inaccessible due to tree.
- (10) Sample was not analyzed for PAHs and percent moisture due to lab error.

Abbreviations:

X - Sample collected and analyzed according to Field Sampling Plan.
+ - Analyte reported due to laboratory error.
O - Analyte not reported due to laboratory error.
Hold - Sample placed on hold. No analyses requested.
NS - Sample not collected due to refusal or poor recovery.
-- not applicable

TABLE 4
SUMMARY OF SOIL RESULTS FOR TPH AND CARCINOGENIC PAHS
Presidio FDS FSP
San Francisco, California

Sample Location	Sample ID	Sample Date	Sample Depth (ft bgs)	TPH Criteria	PAHs Criteria	Sample Type	Analytical Results (mg/kg - dry weight)							
							TPHs		Carcinogenic PAHs					
							TPH Diesel	TPH Fuel Oil	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Chrysene	Carcinogenic PAHs, Total
FDS Section BR1-1														
BR1-1SB01	BR1-1SB01(2.0)	9/24/2007	2	HH-Res	HH-Res	overburden	29 Y	220	--	--	--	--	--	--
	DUP-1-092407	9/24/2007	2	HH-Res	HH-Res	overburden	25 Y	120	--	--	--	--	--	--
BR1-1SB02	BR1-1SB02(4.5)	9/24/2007	4.5	HH-Res	HH-Res	native	<1.1	<5.5	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0275
BR1-1SB03	BR1-1SB03(2.0)	9/27/2007	2	HH-Res	HH-Res	overburden	10 Y	59	--	--	--	--	--	--
FDS Section BR1-2														
BR1-2SB01	BR1-2SB01(3.0)	9/24/2007	3	HH-Res	HH-Res	native	5.1 Y	18	<0.0059	0.0043 J	0.0009 J	<0.0059	0.00062 J	0.00582
	BR1-2SB01(6.5)	9/24/2007	6.5	HH-Res	HH-Res	native	750	440	<0.15	0.1 J	<0.15	<0.15	0.05 J	0.15
BR1-2SB02	BR1-2SB02(3.0)	9/24/2007	3	HH-Res	HH-Res	native	<1.2	<5.8	<0.0058	<0.0058	<0.0058	<0.0058	<0.0058	<0.029
	BR1-2SB02(6.5)	9/24/2007	6.5	HH-Res	HH-Res	native	<1.1	<5.7	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0285
BR1-2SB03	BR1-2SB03(6.5)	9/24/2007	6.5	HH-Res	HH-Res	native	1,100 Y	890	0.033 J	<0.14	<0.14	<0.14	0.079 J	0.112
BR1-2SB04	BR1-2SB04(3.0)	9/24/2007	3	HH-Res	HH-Res	native	4.3 Y	28	<0.011	<0.011	<0.011	<0.011	0.0022 J	0.0022
	BR1-2SB04(6.5)	9/24/2007	6.5	HH-Res	HH-Res	native	<1.1	<5.7	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0285
	DUP-3-092407	9/24/2007	6.5	HH-Res	HH-Res	native	<1.1	<5.7	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0285
BR1-2SB05	BR1-2SB05(6.5)	9/24/2007	6.5	HH-Res	HH-Res	native	4.7 Y	28	<0.0059	<0.0059	<0.0059	<0.0059	<0.0059	<0.0295
	BR1-2SB05(9.0)	9/24/2007	9	HH-Res	HH-Res	native	<1.2	<6.1	<0.006	<0.006	<0.006	<0.006	<0.006	<0.03
BR1-2SB06	BR1-2SB06(6.5)	9/24/2007	6.5	HH-Res	HH-Res	native	<1.2	<5.8	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0285
FDS Section BR2-2														
BR2-2SB01	BR2-2SB01(3.0)	10/9/2007	3	HH-Res	HH-Res	native	74 Y	280	<0.059	0.0093 J	0.017 J	<0.059	0.02 J	0.0463
BR2-2SB02	BR2-2SB02(2.0)	10/9/2007	2	HH-Res	HH-Res	native	710	3,100	<2.3	<2.3	0.26 J+	<2.3	<2.3	0.26
FDS Section BR3-1														
BR3-1SB01	BR3-1SB01(3.0)	9/25/2007	3	HH-Res	HH-Res	native	--	--	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0285
	BR3-1SB01(6.0)	9/25/2007	6	HH-Res	HH-Res	native	--	--	<0.012	<0.012	<0.012	<0.012	<0.012	<0.06
BR3-1SB02	BR3-1SB02(5.0)	9/25/2007	5	HH-Res	HH-Res	native	51	45	0.016 J	0.025 J	0.019 J+	<0.028	0.028 J	0.088
	BR3-1SB02(10.0)	9/25/2007	10	>5 GW	na	native	<1.7	<8.6	<0.0086	<0.0086	<0.0086	<0.0086	<0.0086	<0.043
	DUP-2-092507	9/25/2007	10	>5 GW	na	native	--	--	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05
BR3-1SB03	BR3-1SB03(5.5)	9/25/2007	5.5	HH-Res	HH-Res	native	--	--	<0.0058	<0.0058	<0.0058	<0.0058	<0.0058	<0.029
	BR3-1SB03(10.0)	9/25/2007	10	>5 GW	na	native	--	--	<0.0071	<0.0071	<0.0071	<0.0071	<0.0071	<0.0355
FDS Section BR3-2														
BR3-2SB01	BR3-2SB01(9.5)	9/26/2007	9.5	HH-Res	HH-Res	native	<1.1	<5.7	<0.0056	<0.0056	<0.0056	<0.0056	<0.0056	<0.028
FDS Section BR5-2														
BR5-2SB01	BR5-2SB01(2.5)	9/24/2007	2.5	HH-Res	HH-Res	native	1,200 Y	1,600	<0.17	<0.17	0.022 J	<0.17	0.049 J	0.071
>5 GW							15,000	15,000	na	na	na	na	na	na
Eco-FW							140	140	na	na	na	na	na	na
Eco-T							700	980	na	0.3	na	na	na	na
HH-Rec							3,200	4,500	1	0.1	1	1	10	13
HH-Res							1,380	1,900	0.43	0.04	0.43	0.43	4.3	5.6

TABLE 4
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San Francisco, California

Sample Location	Sample ID	Sample Date	Sample Depth (ft bgs)	TPH Criteria	PAHs Criteria	Sample Type	Analytical Results (mg/kg - dry weight)							
							TPHs		Carcinogenic PAHs					
							TPH Diesel	TPH Fuel Oil	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Chrysene	Carcinogenic PAHs, Total
FDS Section BR5-2														
BR5-2SB02	BR5-2SB02(1.0)	9/28/2007	1	HH-Res	HH-Res	native	270 Y	420	<0.024	<0.024	0.011 J	0.0045 J	0.026	0.0415
BR5-2SB03	BR5-2SB03(2.5)	9/28/2007	2.5	HH-Res	HH-Res	native	<1.8	<8.9	<0.018	<0.018	<0.018	<0.018	<0.018	<0.09
BR5-2SB04	BR5-2SB04(3.0)	9/28/2007	3	HH-Res	HH-Res	native	9,700	8,400	2.9	1.5	1.1	0.23 J	4.9	10.6
BR5-2SB05	BR5-2SB05(2.5)	9/24/2007	2.5	HH-Res	HH-Res	native	2,300	2,000	0.96	0.48	0.41	0.077 J	1.2	3.13
BR5-2SB06	BR5-2SB06(2.5)	9/24/2007	2.5	HH-Res	HH-Res	native	780	580	--	--	--	--	--	--
	DUP2-092407	9/24/2007	2.5	HH-Res	HH-Res	native	520	340	--	--	--	--	--	--
BR5-2SB07	BR5-2SB07(1.5)	9/24/2007	1.5	HH-Res	HH-Res	overburden	7.8 J+,Y	46	<0.0055	0.0039 J	0.00065 J	<0.0055	<0.0055	0.00455
BR5-2SB08	BR5-2SB08(1.5)	9/28/2007	1.5	HH-Res	HH-Res	overburden	690 Y	2,800	<2.7	<2.7	<2.7	<2.7	<2.7	<13.5
FDS Section BR5-3														
BR5-3SB01	BR5-3SB01(2.5)	9/25/2007	2.5	HH-Res	HH-Res	native	5.5 Y	52	<0.026	<0.026	<0.026	<0.026	<0.026	<0.13
BR5-3SB02	BR5-3SB02(2.5)	9/25/2007	2.5	HH-Res	HH-Res	native	<1	6.7	0.00092 J	0.0041 J	0.0014 J+	<0.0053	0.00088 J	0.0073
BR5-3SB03	BR5-3SB03(2.5)	9/25/2007	2.5	HH-Res	HH-Res	native	<1	<5.2	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.026
BR5-3SB04	BR5-3SB04(2.5)	9/25/2007	2.5	HH-Res	HH-Res	native	<11 J	<5.2	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0255
FDS Section BR6-1														
BR6-1SB01	BR6-1SB01(1.5)	9/25/2007	1.5	HH-Res	HH-Res	overburden	<1	<5.1	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0255
	DUP-1-092507	9/25/2007	1.5	HH-Res	HH-Res	overburden	<1	<5.1	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0255
BR6-1SB02	BR6-1SB02(1.5)	9/25/2007	1.5	HH-Res	HH-Res	overburden	<1	<5.2	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.026
BR6-1SB03	BR6-1SB03(1.5)	9/28/2007	1.5	HH-Res	HH-Res	overburden	28 Y	280	0.0022 J	0.0032 J	0.004 J	<0.011	0.0025 J	0.0119
FDS Section BR6-3														
BR6-3SB01	BR6-3SB01(10.0)	9/26/2007	10	>5 GW	na	native	<1.1	<5.7	--	--	--	--	--	--
BR6-3SB02	BR6-3SB02(2.5)	9/26/2007	2.5	HH-Rec	HH-Rec	native	<1.2	<5.9	0.0011 J	<0.0059	0.0015 J	<0.0059	<0.0059	0.0026
BR6-3SB03	BR6-3SB03(2.5)	9/26/2007	2.5	HH-Rec	HH-Rec	native	<1.2	<5.8	--	--	--	--	--	--
BR6-3SB04	BR6-3SB04(12.0)	9/26/2007	12	>5 GW	na	native	1,400	790	--	--	--	--	--	--
	BR6-3SB04(17.0)	9/26/2007	17	>5 GW	na	native	<1.2	<5.9	--	--	--	--	--	--
FDS Section BR7-1														
BR7-1SB01	BR7-1SB01(1.5)	9/28/2007	1.5	HH-Rec	HH-Rec	overburden	--	--	0.0025 J	0.0018 J	0.0037 J	<0.011	0.0031 J	0.0111
BR7-1SB02	BR7-1SB02(1.5)	9/28/2007	1.5	HH-Rec	HH-Rec	overburden	--	--	0.0019 J	0.0018 J	0.0061	0.0009 J	0.007	0.0177
BR7-1SB05	DUP-2-092707	9/27/2007	1.5	HH-Rec	HH-Rec	overburden	<1.1	<5.7	--	--	--	--	--	--
FDS Section BR7-2														
BR7-2SB01	BR7-2SB01(1.5)	10/9/2007	1.5	HH-Rec	HH-Rec	overburden	46 Y	200	0.063 J	0.11 J	0.37 J+	0.088 J	0.063 J	0.694
>5 GW							15,000	15,000	na	na	na	na	na	na
Eco-FW							140	140	na	na	na	na	na	na
Eco-T							700	980	na	0.3	na	na	na	na
HH-Rec							3,200	4,500	1	0.1	1	1	10	13
HH-Res							1,380	1,900	0.43	0.04	0.43	0.43	4.3	5.6

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Sample Location	Sample ID	Sample Date	Sample Depth (ft bgs)	TPH Criteria	PAHs Criteria	Sample Type	Analytical Results (mg/kg - dry weight)							
							TPHs		Carcinogenic PAHs					
							TPH Diesel	TPH Fuel Oil	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Chrysene	Carcinogenic PAHs, Total
FDS Section BR7-2														
BR7-2SB02	BR7-2SB02(1.5)	9/28/2007	1.5	HH-Rec	HH-Rec	overburden	<1.2	<5.9	<0.0059	<0.0059	<0.0059	<0.0059	<0.0059	<0.0295
	DUP-2-092807	9/28/2007	1.5	HH-Rec	HH-Rec	overburden	<1.2	<6	<0.006	<0.006	<0.006	<0.006	<0.006	<0.03
FDS Section BR10-1														
BR10-1SB01	BR10-1SB01(2.0)	9/27/2007	2	Eco-FW	HH-Res	overburden (LTTD)	41 Y	390	0.016 J	0.014 J	0.033 J	0.013 J	0.024 J	0.1
BR10-1SB02	BR10-1SB02(3.0)	9/27/2007	3	Eco-FW	HH-Res	native	360 Y	1,700	--	--	--	--	--	--
BR10-1SB03	BR10-1SB03(3.0)	9/26/2007	3	Eco-FW	HH-Res	native	4.9 Y	31	--	--	--	--	--	--
BR10-1SB05	BR10-1SB05(2.0)	10/1/2007	2	Eco-FW	HH-Res	overburden (LTTD)	100 Y	190	0.042	0.028	0.071	0.02	0.088	0.249
BR10-1SB06	BR10-1SB06(2.0)	10/1/2007	2	Eco-FW	HH-Res	overburden (LTTD)	44 Y	55	0.031 J	0.05 J	0.046 J	0.015 J	0.049 J	0.191
	DUP-3-100107	10/1/2007	2	Eco-FW	HH-Res	overburden (LTTD)	46 Y	69	0.023 J	0.011 J	0.041	0.011 J	0.029	0.115
BR10-1SB07	BR10-1SB07(2.0)	10/1/2007	2	Eco-FW	HH-Res	overburden (LTTD)	24 Y	63	<0.056	<0.056	0.018 J	<0.056	<0.056	0.018
FDS Section BR10-2														
BR10-2SB01	BR10-2SB01(3.0)	10/9/2007	3	Eco-FW	HH-Res	native	430 Y	1,200	--	--	--	--	--	--
FDS Section BR10-3														
BR10-3SB02	BR10-3SB02(1.5)	9/26/2007	1.5	Eco-FW	HH-Res	overburden	11 Y	61	0.0015 J	0.0013 J	0.0021 J	<0.0051	0.0017 J	0.0066
FDS Section BR12-1														
BR12-1SB01	BR12-1SB01(2.0)	9/24/2007	2	HH-Res	HH-Res	native	13 Y	14	--	--	--	--	--	--
BR12-1SB03	BR12-1SB03(5.5)	9/24/2007	5.5	HH-Res	HH-Res	native	44 Y	140	--	--	--	--	--	--
FDS Section BR13-1														
BR13-1SB01	BR13-1SB01(2.0)	9/28/2007	2	Eco-FW	HH-Res	overburden	9.6 Y	82	--	--	--	--	--	--
BR13-1SB02	BR13-1SB02(2.0)	9/26/2007	2	Eco-FW	HH-Res	overburden	30 Y	140	0.075	0.061	0.11	0.033 J	0.069	0.348
BR13-1SB03	BR13-1SB03(5.0)	10/1/2007	5	Eco-FW	HH-Res	native	<1.1	<5.6	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0275
>5 GW							15,000	15,000	na	na	na	na	na	na
Eco-FW							140	140	na	na	na	na	na	na
Eco-T							700	980	na	0.3	na	na	na	na
HH-Rec							3,200	4,500	1	0.1	1	1	10	13
HH-Res							1,380	1,900	0.43	0.04	0.43	0.43	4.3	5.6

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							TPHs		Carcinogenic PAHs					
							TPH Diesel	TPH Fuel Oil	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Chrysene	Carcinogenic PAHs, Total
FDS Section MT-3														
MT-3SB01	MT-3SB01(2.5)	9/28/2007	2.5	HH-Res	HH-Res	overburden	660 Y	1,100	0.017 J	0.013 J	0.16	0.017 J	0.036	0.243
MT-3SB02	MT-3SB02(2.5)	9/28/2007	2.5	HH-Res	HH-Res	overburden	5 Y	31	0.0052 J	0.0046 J	0.0063 J	0.0021 J	0.0069 J	0.0251
MT-3SB03	MT-3SB03(2.0)	9/28/2007	2	HH-Res	HH-Res	overburden	<1.1	9	0.013	0.013	0.023	0.0072	0.013	0.0692
MT-3SB04	MT-3SB04(2.0)	9/28/2007	2	HH-Res	HH-Res	overburden	<1.1	6.7	0.0056	0.0059	0.0093	0.0031 J	0.0071	0.031
	DUP-1-092807	9/28/2007	2	HH-Res	HH-Res	overburden	<1.1	9.5	0.011	0.011	0.02	0.0057	0.012	0.0597
MT-3SB05	MT-3SB05(4.0)	9/28/2007	4	HH-Res	HH-Res	native	--	--	0.0054 J	0.0052 J	0.0072	0.0025 J	0.0062	0.0265
MT-3SB06	MT-3SB06(12.5)	9/25/2007	12.5	>5 GW	na	native	<1.2	<5.8	<0.0058	<0.0058	<0.0058	<0.0058	<0.0058	<0.029
MT-3SB07	MT-3SB07(2.0)	9/28/2007	2	HH-Res	HH-Res	overburden	120 Y	280	0.45	0.56	0.72	0.28	0.53	2.54
MT-3SB08	MT-3SB08(2.0)	9/28/2007	2	HH-Res	HH-Res	overburden	1,200 Y	2,400	0.58	0.72	1.1	0.33	0.69	3.42
MT-3SB09	MT-3SB09(2.0)	9/28/2007	2	HH-Res	HH-Res	overburden	2 Y	18	0.042	0.047	0.068	0.02	0.054	0.231
FDS Section MT-4														
MT-4SB01	MT-4SB01(2.0)	9/25/2007	2	HH-Res	HH-Res	overburden	19 Y	70	--	--	--	--	--	--
MT-4SB02	MT-4SB02(2)	9/24/2007	2	HH-Res	HH-Res	overburden	41 Y	200	--	--	--	--	--	--
MT-4SB03	MT-4SB03(2.0)	9/24/2007	2	HH-Res	HH-Res	overburden	12,000 Y	12,000	--	--	--	--	--	--
MT-4SB04	MT-4SB04(2.0)	9/24/2007	2	HH-Res	HH-Res	overburden	13 Y	92	--	--	--	--	--	--
MT-4SB05	MT-4SB05(2.0)	9/24/2007	2	HH-Res	HH-Res	overburden	1.6 Y	13	--	--	--	--	--	--
MT-4SB06	MT-4SB06(2.0)	9/24/2007	2	HH-Res	HH-Res	overburden	<1.1	14 Y	--	--	--	--	--	--
FDS Section MT-5														
MT-5SB01	MT-5SB01(4.5)	9/24/2007	4.5	HH-Res	HH-Res	native	--	--	<0.0051	0.0037 J	0.0012 J	<0.0051	0.00073 J	0.00563
MT-5SB02	MT-5SB02(9.5)	9/25/2007	9.5	HH-Res	HH-Res	native	4.1	<5.1	<0.005	0.0033 J	<0.005	0.0024 J	<0.005	0.0057
FDS Section MT-9														
MT-9SB01	MT-9SB01(2.0)	10/1/2007	2	Eco-T	HH-Res	overburden	<1	6.6 Y	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0255
MT-9SB02	MT-9SB02(2.0)	10/1/2007	2	Eco-T	HH-Res	overburden	830 Y	1,600	<0.27	0.082 J	0.046 J	<0.27	<0.27	0.128
MT-9SB03	MT-9SB03(2.0)	10/1/2007	2	Eco-T	HH-Res	overburden	3.5 Y	6.8 Y	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0255
	DUP-1-100107	10/1/2007	2	Eco-T	HH-Res	overburden	1.9 Y	<5	<0.005	<0.005	<0.005	<0.005	<0.005	<0.025
FDS Section MT-10														
MT-10SB01	MT-10SB01(0.5)	10/5/2007	0.5	Eco-T	HH-Rec	native	70 Y	130	<0.005	<0.005	0.0025 J	<0.005	0.00086 J	0.00336
>5 GW							15,000	15,000	na	na	na	na	na	na
Eco-FW							140	140	na	na	na	na	na	na
Eco-T							700	980	na	0.3	na	na	na	na
HH-Rec							3,200	4,500	1	0.1	1	1	10	13
HH-Res							1,380	1,900	0.43	0.04	0.43	0.43	4.3	5.6

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							TPHs		Carcinogenic PAHs					
							TPH Diesel	TPH Fuel Oil	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Chrysene	Carcinogenic PAHs, Total
FDS Section MT-11														
MT-11SB01	MT-11SB01(2.0)	10/5/2007	2	Eco-T	HH-Rec	overburden	--	--	<0.005	0.0035 J	0.0014 J	<0.005	0.001 J	0.0059
MT-11SB02	MT-11SB02(2.0)	10/5/2007	2	Eco-T	HH-Rec	overburden	--	--	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.026
MT-11SB03	MT-11SB03(2.0)	10/5/2007	2	Eco-T	HH-Rec	overburden	--	--	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0255
MT-11SB04	MT-11SB04(2.0)	10/5/2007	2	Eco-T	HH-Rec	overburden	--	--	<0.0052	<0.0052	0.0069	<0.0052	0.0007 J	0.0076
MT-11SB05	MT-11SB05(2.0)	10/5/2007	2	Eco-T	HH-Rec	overburden	--	--	<0.0054	<0.0054	<0.0054	<0.0054	<0.0054	<0.027
MT-11SB06	MT-11SB06(1.5)	10/5/2007	1.5	Eco-T	HH-Rec	overburden	--	--	<0.11	<0.11	<0.11	<0.11	<0.11	<0.55
MT-11SB07	MT-11SB07(2.0)	10/5/2007	2	Eco-T	HH-Rec	overburden	--	--	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.026
	DUP-1-100507	10/5/2007	2	Eco-T	HH-Rec	overburden	--	--	<0.0051	<0.0051	0.00087 J	<0.0051	<0.0051	0.00087
MT-11SB08	MT-11SB08(2.0)	10/5/2007	2	Eco-T	HH-Rec	overburden	--	--	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0255
FDS Section MT-12														
MT-12SB01	MT-12SB01(2.0)	10/5/2007	2	Eco-T	HH-Res	overburden	--	--	<0.0054	0.0045 J	0.0015 J	0.0041 J	0.0015 J	0.0116
MT-12SB02	MT-12SB02(2.0)	10/9/2007	2	Eco-T	HH-Res	overburden	--	--	<0.005	<0.005	<0.005	<0.005	<0.005	<0.025
MT-12SB03	MT-12SB03(2.0)	9/25/2007	2	Eco-T	HH-Res	overburden	--	--	<0.027	0.019 J	0.0043 J+	<0.027	0.0037 J	0.027
MT-12SB04	MT-12SB04(2.0)	9/25/2007	2	Eco-T	HH-Res	overburden	--	--	<0.028	<0.028	0.004 J	<0.028	<0.028	0.004
FDS Section MT-13														
MT-13SB01	MT-13SB01(2.0)	10/1/2007	2	HH-Res	HH-Res	overburden	52 Y	560	0.11 J	0.13	0.16	0.054 J	0.14	0.594
	DUP-2-100107	10/1/2007	2	HH-Res	HH-Res	overburden	47 Y	500	0.058 J	0.11 J	0.15 J	<0.27	0.077 J	0.395
MT-13SB02	MT-13SB02(2.0)	9/26/2007	2	HH-Res	HH-Res	overburden	330 Y	3,000	<0.56	<0.566 J	0.06 J	<0.566 J	0.14 J	0.2
FDS Section MT-14														
MT-14SB01	MT-14SB01(2.5)	8/11/2008	2.5	HH-Res	HH-Res	native	<1	<5.1	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051
	DUP1-081108	8/11/2008	2.5	HH-Res	HH-Res	native	<1	<5.2	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052
MT-14SB02	MT-14SB02(2)	8/11/2008	2	HH-Res	HH-Res	native	<1.1	<5.5	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055
MT-14SB03	MT-14SB03(2)	8/11/2008	2	HH-Res	HH-Res	native	<1.1	<5.3	<0.0054	<0.0054	<0.0054	<0.0054	<0.0054	<0.0054
MT-14SB04	MT-14SB04(1.5)	8/11/2008	1.5	HH-Res	HH-Res	overburden	7.1 Y	52	0.002 J	0.0014 J	0.0059	0.0011 J	0.0069	0.0173
MT-14SB05	MT-14SB05(2.5)	8/12/2008	2.5	HH-Res	HH-Res	overburden	<1.1	7.3	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055
MT-14SB06	MT-14SB06(2.5)	8/11/2008	2.5	HH-Res	HH-Res	native	3 Y	<5.2	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052
MT-14SB07	MT-14SB07(2.5)	8/13/2008	2.5	HH-Res	HH-Res	native	29 Y	110	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027
MT-14SB08	MT-14SB08(1.5)	8/12/2008	1.5	HH-Res	HH-Res	overburden	6.7 Y	37	0.0054 J	0.0063 J	0.011	0.0038 J	0.0085 J	0.035
MT-14SB09	MT-14SB09(2.5)	8/12/2008	2.5	HH-Res	HH-Res	native	1.5 Y	6.2	<0.0053	<0.0053	<0.0053	<0.0053	0.00082 J	0.00082
	MT-14SB09(7)	8/12/2008	7	HH-Res	HH-Res	native	240 Y	350	<0.053	0.011 J	0.015 J	<0.053	0.031 J	0.057
MT-14SB10	MT-14SB10(1.5)	8/11/2008	1.5	HH-Res	HH-Res	overburden	22 Y, J+	25 J+	0.0032 J	0.0047 J	0.0097	0.0027 J	0.0064	0.0267
MT-14SB11	MT-14SB11(1.5)	8/11/2008	1.5	HH-Res	HH-Res	overburden	1.5 Y	7.5	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053
>5 GW							15,000	15,000	na	na	na	na	na	na
Eco-FW							140	140	na	na	na	na	na	na
Eco-T							700	980	na	0.3	na	na	na	na
HH-Rec							3,200	4,500	1	0.1	1	1	10	13
HH-Res							1,380	1,900	0.43	0.04	0.43	0.43	4.3	5.6

TABLE 4
SUMMARY OF SOIL RESULTS FOR TPH AND CARCINOGENIC PAHS
Presidio FDS FSP
San Francisco, California

Sample Location	Sample ID	Sample Date	Sample Depth (ft bgs)	TPH Criteria	PAHs Criteria	Sample Type	Analytical Results (mg/kg - dry weight)							
							TPHs		Carcinogenic PAHs					
							TPH Diesel	TPH Fuel Oil	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Chrysene	Carcinogenic PAHs, Total
FDS Section MT-14														
MT-14SB12	MT-14SB12(3.5)	8/12/2008	3.5	HH-Res	HH-Res	native	92 Y	94	0.041	0.022	0.013	0.0031 J	0.074	0.1531
MT-14SB13	MT-14SB13(1.5)	8/11/2008	1.5	HH-Res	HH-Res	overburden	21 Y	140	0.0021 J	0.0032 J	0.0047 J	<0.01	0.0047 J	0.0147
MT-14SB14	MT-14SB14(1.5)	8/11/2008	1.5	HH-Res	HH-Res	overburden	1.1 Y	8.6	<0.0051	0.00077 J	<0.0051	<0.0051	<0.0051	0.00077
FDS Section MT-15														
MT-15SB01	MT-15SB01(2.5)	9/25/2007	2.5	Eco-T	HH-Res	native	11 Y	9.2 Y	0.0045 J	<0.017	<0.017	<0.017	<0.017	0.0045
MT-15SB02	MT-15SB02(3.5)	9/28/2007	3.5	HH-Res	HH-Res	native	1,700 Y	5,300	0.18 J	0.3 J	0.34 J	<1.1	0.18 J	1
	DUP-3-092807	9/28/2007	3.5	HH-Res	HH-Res	native	1,300 Y	4,000	<1.4	<1.4	<1.4	<1.4	<1.4	<7
MT-15SB03	MT-15SB03(3.5)	9/28/2007	3.5	HH-Res	HH-Res	native	<1.1	<5.5	<0.0055	<0.0055	0.00088 J	<0.0055	<0.0055	0.00088
FDS Section MT-16														
MT-16SB01	MT-16SB01(1.5)	9/26/2007	1.5	HH-Res	HH-Res	overburden	18 Y	300	0.006 J	0.011 J	0.017 J	0.0059 J	<0.027	0.0399
MT-16SB02	MT-16SB02(1.5)	9/26/2007	1.5	HH-Res	HH-Res	overburden	9.4 Y	64	0.018	0.029 J	0.034 J	0.0095 J	0.019	0.11
MT-16SB03	MT-16SB03(1.5)	9/26/2007	1.5	HH-Res	HH-Res	overburden	7.5 Y	44	0.019	0.021	0.028	0.012	0.026	0.106
FDS Section MT-17														
MT-17SB01	MT-17SB01(2.0)	9/27/2007	2	HH-Res	HH-Res	overburden	6.4 Y	43	--	--	--	--	--	--
MT-17SB02	MT-17SB02(2.0)	9/27/2007	2	HH-Res	HH-Res	overburden	<1.1	6	--	--	--	--	--	--
	DUP-1-092707	9/27/2007	2	HH-Res	HH-Res	overburden	1.9 Y	32	--	--	--	--	--	--
MT-17SB03	MT-17SB03(3.5)	9/27/2007	3.5	HH-Res	HH-Res	native	<1.1	<5.7	<0.0056	<0.0056	<0.0056	<0.0056	<0.0056	<0.028
MT-17SB04	MT-17SB04(1.5)	9/27/2007	1.5	HH-Res	HH-Res	overburden	1.4 Y	<5.9	--	--	--	--	--	--
MT-17SB05	MT-17SB05(2.0)	9/27/2007	2	HH-Res	HH-Res	overburden	40 Y	85	--	--	--	--	--	--
MT-17SB06	MT-17SB06(2.0)	9/27/2007	2	HH-Res	HH-Res	overburden	2.8 Y	7.3	--	--	--	--	--	--
MT-17SB07	MT-17SB07(2.0)	9/27/2007	2	HH-Res	HH-Res	overburden	40 Y	61	--	--	--	--	--	--
MT-17SB08	MT-17SB08(2.0)	9/27/2007	2	HH-Res	HH-Res	overburden	780 Y	2,300	--	--	--	--	--	--
MT-17SB09	MT-17SB09(2.0)	9/27/2007	2	HH-Res	HH-Res	overburden	<1.2	<5.8	--	--	--	--	--	--
MT-17SB10	MT-17SB10(2.0)	9/27/2007	2	HH-Res	HH-Res	overburden	5.5 Y	17	--	--	--	--	--	--
>5 GW							15,000	15,000	na	na	na	na	na	na
Eco-FW							140	140	na	na	na	na	na	na
Eco-T							700	980	na	0.3	na	na	na	na
HH-Rec							3,200	4,500	1	0.1	1	1	10	13
HH-Res							1,380	1,900	0.43	0.04	0.43	0.43	4.3	5.6

TABLE 4
SUMMARY OF SOIL RESULTS FOR TPH AND CARCINOGENIC PAHS
Presidio FDS FSP
San Francisco, California

Abbreviations:

--" - not analyzed
<0.50 - Compound not detected at or above indicated laboratory reporting limit
ft bgs - feet below ground surface
mg/kg - Milligrams per kilogram
na - not applicable
TPH - Total Petroleum Hydrocarbons
PAHs - Polynuclear Aromatic Hydrocarbons
J - estimated value. Plus sign indicates numerical value has high bias.
Y - chromatographic pattern does not resemble standard

Notes:

Abbreviations for Cleanup Levels from Water Board Order R2-2003-0080:
>5 GW (Table 3) Soil Cleanup Levels for the Protection of Water Quality at Detectable Levels, > 5 feet above the highest groundwater
<5 CF (Table 5) Soil Cleanup Levels for Crissy Field, < 5 feet above the highest groundwater
<5 MCL (Table 4) Soil Cleanup Levels for the Protection of Water Quality at Drinking Water Standards, < 5 feet above the highest groundwater
Eco-FW (Table 7) Point-of-Compliance Concentrations for Soil and Water for gasoline and BTEX in Surface Water and Sediments of the Proposed Freshwater Stream
Eco-SW (Table 6) Point-of-Compliance Concentrations for Soil and Water for Petroleum Hydrocarbons, BTEX, and MTBE for the Saltwater Protection Zone
Eco-T (Table 2) Soil Cleanup Levels for the Protection of Ecological Receptors, Terrestrial Receptors
HH-Rec (Table 1) Soil Cleanup Levels for the Protection of Human Health, Recreational
HH-Res (Table 1) Soil Cleanup Levels for the Protection of Human Health, Residential

TABLE 5
SUMMARY OF SOIL RESULTS FOR BTEX
 Presidio FDS
 San Francisco, California

Sample Location	Sample ID	Sample Date	Sample Depth (ft bgs)	BTEX Criteria	Analytical Results (mg/kg - dry weight)					
					Benzene	Ethylbenzene	Toluene	m,p-Xylenes	o-Xylene	Xylenes, Total
BR10-1										
BR10-1SB01	BR10-1SB01(2.0)	9/27/2007	2	Eco-FW	<0.005	<0.005	<0.005	<0.005	<0.005	<0.01
BR10-1SB05	BR10-1SB05(2.0)	10/1/2007	2	Eco-FW	<0.0045	<0.0045	<0.0045	<0.0045	<0.0045	<0.009
BR10-1SB06	BR10-1SB06(2.0)	10/1/2007	2	Eco-FW	<0.0047	<0.0047	<0.0047	<0.0047	<0.0047	<0.0094
	DUP-3-100107	10/1/2007	2	Eco-FW	<0.0047	<0.0047	<0.0047	<0.0047	<0.0047	<0.0094
BR10-1SB07	BR10-1SB07(2.0)	10/1/2007	2	Eco-FW	<0.0047	<0.0047	<0.0047	<0.0047	<0.0047	<0.0094
Applicable Cleanup Levels										
Eco-FW					0.79	15	3	na	na	5.7

Abbreviations:

<0.50 - Compound not detected at or above indicated laboratory reporting limit

ft bgs - feet below ground surface

mg/kg - Milligrams per kilogram

na - not applicable

BTEX - Benzene, Toluene, Ethylbenzene, m,p-Xylene and o-Xylene

Eco-FW Ecological freshwater protection criteria. Cleanup levels from Order Water Board Order R2-2003-0080.

Notes:

(a) Samples were analyzed by EPA Method 8021.

TABLE 6
SUMMARY OF SOIL RESULTS FOR PAHS
Presidio FDS FSP
San Francisco, California

Sample Location	Sample ID	Sample Date	Sample Depth (ft bgs)	PAHs Criteria	Analytical Results (mg/kg - dry weight)																	
					Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	2-methylnaphthalene	Naphthalene	Phenanthrene	Pyrene	Carcinogenic PAHs, Total
FDS Section BR1-1																						
BR1-1SB02	BR1-1SB02(4.5)	9/24/2007	4.5	HH-Res	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0275	
FDS Section BR1-2																						
BR1-2SB01	BR1-2SB01(3.0)	9/24/2007	3	HH-Res	<0.0059	<0.0059	<0.0059	<0.0059	0.0043 J	0.0009 J	0.00075 J	<0.0059	0.00062 J	<0.0059	<0.0059	<0.0059	<0.0059	0.0011 J	<0.0059	<0.0059	0.00087 J	0.00582
	BR1-2SB01(6.5)	9/24/2007	6.5	HH-Res	0.034 J	0.026 J	0.035 J	<0.15	0.1 J	<0.15	<0.15	<0.15	0.05 J	<0.15	<0.15	0.098 J	<0.15	<0.15	<0.15	<0.15	0.076 J	0.15
BR1-2SB02	BR1-2SB02(3.0)	9/24/2007	3	HH-Res	<0.0058	<0.0058	<0.0058	<0.0058	<0.0058	<0.0058	<0.0058	<0.0058	<0.0058	<0.0058	<0.0058	<0.0058	<0.0058	<0.0058	<0.0058	<0.0058	<0.0058	<0.029
	BR1-2SB02(6.5)	9/24/2007	6.5	HH-Res	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0285
BR1-2SB03	BR1-2SB03(6.5)	9/24/2007	6.5	HH-Res	0.058 J	<0.14	0.076 J	0.033 J	<0.14	<0.14	<0.14	<0.14	0.079 J	<0.14	<0.14	0.33	<0.14	<0.14	<0.14	<0.14	0.14 J	0.112
BR1-2SB04	BR1-2SB04(3.0)	9/24/2007	3	HH-Res	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	0.0022 J	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	<0.011	0.0022
	BR1-2SB04(6.5)	9/24/2007	6.5	HH-Res	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0285	
	DUP-3-092407	9/24/2007	6.5	HH-Res	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0285	
BR1-2SB05	BR1-2SB05(6.5)	9/24/2007	6.5	HH-Res	<0.0059	<0.0059	<0.0059	<0.0059	<0.0059	<0.0059	<0.0059	<0.0059	<0.0059	<0.0059	<0.0059	<0.0059	<0.0059	<0.0059	<0.0059	<0.0059	<0.0295	
	BR1-2SB05(9.0)	9/24/2007	9	HH-Res	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.03	
BR1-2SB06	BR1-2SB06(6.5)	9/24/2007	6.5	HH-Res	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0285	
FDS Section BR2-2																						
BR2-2SB01	BR2-2SB01(3.0)	10/9/2007	3	HH-Res	<0.059	<0.059	<0.059	<0.059	0.0093 J	0.017 J	0.03 J-	<0.059	0.02 J	0.0063 J-	0.0093 J	<0.059	0.0089 J-	0.0074 J	0.0073 J	0.013 J	0.014 J	0.0463
BR2-2SB02	BR2-2SB02(2.0)	10/9/2007	2	HH-Res	<2.3	<2.3	<2.3	<2.3	<2.3	0.26 J+	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	<2.3	0.26
FDS Section BR3-1																						
BR3-1SB01	BR3-1SB01(3.0)	9/25/2007	3	HH-Res	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0057	<0.0285
	BR3-1SB01(6.0)	9/25/2007	6	HH-Res	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012	<0.012	<0.06	
BR3-1SB02	BR3-1SB02(5.0)	9/25/2007	5	HH-Res	<0.028	<0.028	<0.028	0.016 J	0.025 J	0.019 J+	0.015 J	<0.028	0.028 J	0.0038 J	0.038	0.01 J	0.0069 J	0.017 J	0.0056 J	0.049	0.046	0.088
	BR3-1SB02(10.0)	9/25/2007	10	na	<0.0086	<0.0086	<0.0086	<0.0086	<0.0086	<0.0086	<0.0086	<0.0086	<0.0086	<0.0086	<0.0086	<0.0086	<0.0086	<0.0086	<0.0086	<0.0086	<0.043	
	DUP-2-092507	9/25/2007	10	na	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.05	
BR3-1SB03	BR3-1SB03(5.5)	9/25/2007	5.5	HH-Res	<0.0058	<0.0058	<0.0058	<0.0058	<0.0058	<0.0058	<0.0058	<0.0058	<0.0058	<0.0058	<0.0058	<0.0058	<0.0058	<0.0058	<0.0058	<0.0058	<0.029	
	BR3-1SB03(10.0)	9/25/2007	10	na	<0.0071	<0.0071	<0.0071	<0.0071	<0.0071	<0.0071	<0.0071	<0.0071	<0.0071	<0.0071	<0.0071	<0.0071	<0.0071	<0.0071	<0.0071	<0.0071	<0.0355	
FDS Section BR3-2																						
BR3-2SB01	BR3-2SB01(9.5)	9/26/2007	9.5	HH-Res	<0.0056	<0.0056	<0.0056	<0.0056	<0.0056	<0.0056	<0.0056	<0.0056	<0.0056	<0.0056	<0.0056	<0.0056	<0.0056	<0.0056	<0.0056	<0.0056	<0.028	
FDS Section BR5-2																						
BR5-2SB01	BR5-2SB01(2.5)	9/24/2007	2.5	HH-Res	<0.17	<0.17	<0.17	<0.17	<0.17	0.022 J	0.048 J	<0.17	0.049 J	<0.17	<0.17	<0.17	0.019 J	<0.17	<0.17	<0.17	0.051 J	0.071
BR5-2SB02	BR5-2SB02(1.0)	9/28/2007	1	HH-Res	<0.024	0.0028 J	<0.024	<0.024	<0.024	0.011 J	0.01 J	0.0045 J	0.026	<0.024	<0.024	<0.024	<0.024	<0.024	<0.024	<0.024	0.011 J	0.0415
BR5-2SB03	BR5-2SB03(2.5)	9/28/2007	2.5	HH-Res	<0.018	<0.018	<0.018	<0.018	<0.018	<0.018	<0.018	<0.018	<0.018	<0.018	<0.018	<0.018	<0.018	<0.018	<0.018	<0.018	<0.018	<0.09
BR5-2SB04	BR5-2SB04(3.0)	9/28/2007	3	HH-Res	2.7	0.77	3.7	2.9	1.5	1.1	0.38	0.23 J	4.9	0.2 J	1.7	4.4	0.32 J	0.28 J	0.62	9.1	4.9	10.6
BR5-2SB05	BR5-2SB05(2.5)	9/24/2007	2.5	HH-Res	0.47	0.17 J	0.48	0.96	0.48	0.41	0.19	0.077 J	1.2	0.079 J	0.44	0.88	0.13 J	0.17 J	0.16 J	0.44	1.4	3.13
BR5-2SB07	BR5-2SB07(1.5)	9/24/2007	1.5	HH-Res	<0.0055	<0.0055	<0.0055	<0.0055	0.0039 J	0.00065 J	0.0016 J	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	0.00455
BR5-2SB08	BR5-2SB08(1.5)	9/28/2007	1.5	HH-Res	<2.7	<2.7	<2.7	<2.7	<2.7	<2.7	1 J	<2.7	<2.7	<2.7	<2.7	<2.7	<2.7	<2.7	<2.7	<2.7	<2.7	<13.5
HH-Rec					na	na	13,800	1	0.1	1	1,400	1	10	na	1,900	1,800	na	na	1,100	1,400	1,400	13
HH-Res					na	na	5,900	0.43	0.04	0.43	620	0.43	4.3	na	820	770	na	na	480	600	620	5.6

TABLE 6
SUMMARY OF SOIL RESULTS FOR PAHS
Presidio FDS FSP
San Francisco, California

Sample Location	Sample ID	Sample Date	Sample Depth (ft bgs)	PAHs Criteria	Analytical Results (mg/kg - dry weight)																	
					Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	2-methylnaphthalene	Naphthalene	Phenanthrene	Pyrene	Carcinogenic PAHs, Total
FDS Section BR5-3																						
BR5-3SB01	BR5-3SB01(2.5)	9/25/2007	2.5	HH-Res	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026	<0.026	<0.13	
BR5-3SB02	BR5-3SB02(2.5)	9/25/2007	2.5	HH-Res	<0.0053	<0.0053	<0.0053	0.00092 J	0.0041 J	0.0014 J+	0.00094 J	<0.0053	0.00088 J	<0.0053	<0.0053	<0.0053	0.00072 J	<0.0053	<0.0053	<0.0053	0.0012 J	0.0073
BR5-3SB03	BR5-3SB03(2.5)	9/25/2007	2.5	HH-Res	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.026
BR5-3SB04	BR5-3SB04(2.5)	9/25/2007	2.5	HH-Res	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0255
FDS Section BR6-1																						
BR6-1SB01	BR6-1SB01(1.5)	9/25/2007	1.5	HH-Res	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0255
	DUP-1-092507	9/25/2007	1.5	HH-Res	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0255
BR6-1SB02	BR6-1SB02(1.5)	9/25/2007	1.5	HH-Res	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.026
BR6-1SB03	BR6-1SB03(1.5)	9/28/2007	1.5	HH-Res	<0.011	<0.011	<0.011	0.0022 J	0.0032 J	0.004 J	0.0021 J	<0.011	0.0025 J	<0.011	0.0026 J	<0.011	0.0017 J	0.0017 J	<0.011	0.0019 J	0.0031 J	0.0119
FDS Section BR6-3																						
BR6-3SB02	BR6-3SB02(2.5)	9/26/2007	2.5	HH-Rec	<0.0059	<0.0059	<0.0059	0.0011 J	<0.0059	0.0015 J	0.00086 J	<0.0059	<0.0059	<0.0059	0.0012 J	<0.0059	<0.0059	0.0052 J	<0.0059	0.00086 J	0.0016 J	0.0026
FDS Section BR7-1																						
BR7-1SB01	BR7-1SB01(1.5)	9/28/2007	1.5	HH-Rec	<0.011	<0.011	<0.011	0.0025 J	0.0018 J	0.0037 J	0.0022 J	<0.011	0.0031 J	<0.011	0.003 J	<0.011	<0.011	0.0026 J	0.0022 J	0.0047 J	0.0041 J	0.0111
BR7-1SB02	BR7-1SB02(1.5)	9/28/2007	1.5	HH-Rec	<0.0053	<0.0053	<0.0053	0.0019 J	0.0018 J	0.0061	0.0035 J	0.0009 J	0.007	0.00058 J	0.0038 J	0.0019 J	0.0015 J	0.0094	0.0028 J	0.016	0.0073	0.0177
FDS Section BR7-2																						
BR7-2SB01	BR7-2SB01(1.5)	10/9/2007	1.5	HH-Rec	<0.12	<0.12	<0.12	0.063 J	0.11 J	0.37 J+	0.33	0.088 J	0.063 J	0.071 J	0.046 J	<0.12	0.2	0.11 J	<0.12	0.028 J	0.059 J	0.694
BR7-2SB02	BR7-2SB02(1.5)	9/28/2007	1.5	HH-Rec	<0.0059	<0.0059	<0.0059	<0.0059	<0.0059	<0.0059	<0.0059	<0.0059	<0.0059	<0.0059	<0.0059	<0.0059	<0.0059	<0.0059	<0.0059	<0.0059	<0.0059	<0.0295
	DUP-2-092807	9/28/2007	1.5	HH-Rec	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.03
FDS Section BR10-1																						
BR10-1SB01	BR10-1SB01(2.0)	9/27/2007	2	HH-Res	<0.056	<0.056	<0.056	0.016 J	0.014 J	0.033 J	0.03 J	0.013 J	0.024 J	<0.0566 J	0.019 J	<0.056	0.014 J-	0.011 J	<0.056	0.013 J	0.019 J	0.1
BR10-1SB05	BR10-1SB05(2.0)	10/1/2007	2	HH-Res	0.003 J	0.0063 J	0.016 J	0.042	0.028	0.071	0.024	0.02	0.088	0.0064 J	0.12	0.01 J	0.017	0.022	0.013 J	0.12	0.22	0.249
BR10-1SB06	BR10-1SB06(2.0)	10/1/2007	2	HH-Res	<0.055	<0.055	<0.055	0.031 J	0.05 J	0.046 J	0.024 J	0.015 J	0.049 J	<0.055	0.1	<0.055	0.015 J	0.014 J	0.0089 J	0.049 J	0.067	0.191
	DUP-3-100107	10/1/2007	2	HH-Res	<0.028	<0.028	0.0097 J	0.023 J	0.011 J	0.041	0.015 J	0.011 J	0.029	<0.028	0.084	0.0051 J	0.0083 J	0.032	0.0047 J	0.072	0.067	0.115
BR10-1SB07	BR10-1SB07(2.0)	10/1/2007	2	HH-Res	<0.056	<0.056	<0.056	<0.056	<0.056	0.018 J	0.012 J	<0.056	<0.056	<0.056	<0.056	<0.056	<0.056	0.051 J	<0.056	0.0073 J	<0.056	0.018
FDS Section BR10-3																						
BR10-3SB02	BR10-3SB02(1.5)	9/26/2007	1.5	HH-Res	<0.0051	<0.0051	<0.0051	0.0015 J	0.0013 J	0.0021 J	0.0012 J	<0.0051	0.0017 J	<0.0051	0.0028 J	<0.0051	<0.0051	0.0046 J	<0.0051	0.0014 J	0.0039 J	0.0066
FDS Section BR13-1																						
BR13-1SB02	BR13-1SB02(2.0)	9/26/2007	2	HH-Res	0.0075 J	<0.052	0.033 J	0.075	0.061	0.11	0.03 J	0.033 J	0.069	0.01 J	0.14	<0.052	0.027 J	<0.052	<0.052	0.087	0.12	0.348
BR13-1SB03	BR13-1SB03(5.0)	10/1/2007	5	HH-Res	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0275
HH-Rec					na	na	13,800	1	0.1	1	1,400	1	10	na	1,900	1,800	na	na	1,100	1,400	1,400	13
HH-Res					na	na	5,900	0.43	0.04	0.43	620	0.43	4.3	na	820	770	na	na	480	600	620	5.6

TABLE 6
SUMMARY OF SOIL RESULTS FOR PAHS
Presidio FDS FSP
San Francisco, California

Sample Location	Sample ID	Sample Date	Sample Depth (ft bgs)	PAHs Criteria	Analytical Results (mg/kg - dry weight)																	
					Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	2-methylnaphthalene	Naphthalene	Phenanthrene	Pyrene	Carcinogenic PAHs, Total
FDS Section MT-3																						
MT-3SB01	MT-3SB01(2.5)	9/28/2007	2.5	HH-Res	0.016 J	0.037	<0.029	0.017 J	0.013 J	0.16	0.0088 J	0.017 J	0.036	0.0025 J	0.035	0.051	0.0065 J	<0.029	<0.029	0.028 J	0.035	0.243
MT-3SB02	MT-3SB02(2.5)	9/28/2007	2.5	HH-Res	<0.011	<0.011	<0.011	0.0052 J	0.0046 J	0.0063 J	0.0031 J	0.0021 J	0.0069 J	<0.011	0.0067 J	<0.011	0.0021 J	<0.011	<0.011	0.0045 J	0.01 J	0.0251
MT-3SB03	MT-3SB03(2.0)	9/28/2007	2	HH-Res	0.00081 J	<0.0053	<0.0053	0.013	0.013	0.023	0.01	0.0072	0.013	0.0031 J	0.017	<0.0053	0.0085	0.0048 J	0.00086 J	0.0057	0.015	0.0692
MT-3SB04	MT-3SB04(2.0)	9/28/2007	2	HH-Res	<0.0053	<0.0053	<0.0053	0.0056	0.0059	0.0093	0.0034 J	0.0031 J	0.0071	0.0011 J	0.0061	<0.0053	0.0029 J	<0.0053	<0.0053	0.0018 J	0.0067	0.031
	DUP-1-092807	9/28/2007	2	HH-Res	<0.0053	<0.0053	<0.0053	0.011	0.011	0.02	0.0082	0.0057	0.012	0.0024 J	0.014	<0.0053	0.007	<0.0053	<0.0053	0.0052 J	0.014	0.0597
MT-3SB05	MT-3SB05(4.0)	9/28/2007	4	HH-Res	<0.0058	<0.0058	0.0011 J	0.0054 J	0.0052 J	0.0072	0.0029 J	0.0025 J	0.0062	0.00091 J	0.0088	<0.0058	0.0025 J	<0.0058	<0.0058	0.0045 J	0.0097	0.0265
MT-3SB06	MT-3SB06(12.5)	9/25/2007	12.5	na	<0.0058	<0.0058	<0.0058	<0.0058	<0.0058	<0.0058	<0.0058	<0.0058	<0.0058	<0.0058	<0.0058	<0.0058	<0.0058	<0.0058	<0.0058	<0.0058	<0.0058	<0.029
MT-3SB07	MT-3SB07(2.0)	9/28/2007	2	HH-Res	0.017	<0.011	0.044	0.45	0.56	0.72	0.22	0.28	0.53	0.083	0.52	0.012	0.22	0.006 J	0.015	0.18	0.54	2.54
MT-3SB08	MT-3SB08(2.0)	9/28/2007	2	HH-Res	0.018	<0.018	0.044	0.58	0.72	1.1	0.29	0.33	0.69	0.1	0.68	0.013 J	0.28	0.013 J	0.016 J	0.2	0.69	3.42
MT-3SB09	MT-3SB09(2.0)	9/28/2007	2	HH-Res	0.0029 J	<0.0054	0.0058	0.042	0.047	0.068	0.031	0.02	0.054	0.01	0.054	0.0025 J	0.026	0.003 J	0.009	0.026	0.056	0.231
FDS Section MT-5																						
MT-5SB01	MT-5SB01(4.5)	9/24/2007	4.5	HH-Res	<0.0051	<0.0051	<0.0051	<0.0051	0.0037 J	0.0012 J	0.00094 J	<0.0051	0.00073 J	<0.0051	<0.0051	<0.0051	0.00052 J	<0.0051	<0.0051	<0.0051	0.00092 J	0.00563
MT-5SB02	MT-5SB02(9.5)	9/25/2007	9.5	HH-Res	<0.005	<0.005	<0.005	<0.005	0.0033 J	<0.005	<0.005	0.0024 J	<0.005	<0.005	<0.005	0.00087 J	<0.005	<0.005	<0.005	<0.005	<0.005	0.0057
FDS Section MT-9																						
MT-9SB01	MT-9SB01(2.0)	10/1/2007	2	HH-Res	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	0.0047 J	<0.0051	0.0015 J	<0.0051	<0.0255
MT-9SB02	MT-9SB02(2.0)	10/1/2007	2	HH-Res	<0.27	<0.27	<0.27	<0.27	0.082 J	0.046 J	0.1 J	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	<0.27	0.048 J	0.128
MT-9SB03	MT-9SB03(2.0)	10/1/2007	2	HH-Res	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0255	
	DUP-1-100107	10/1/2007	2	HH-Res	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.025
FDS Section MT-10																						
MT-10SB01	MT-10SB01(0.5)	10/5/2007	0.5	HH-Rec	<0.005	<0.005	<0.005	<0.005	<0.005	0.0025 J	0.001 J	<0.005	0.00086 J	<0.005	0.00089 J	<0.005	0.00045 J	<0.005	<0.005	<0.005	0.0014 J	0.00336
FDS Section MT-11																						
MT-11SB01	MT-11SB01(2.0)	10/5/2007	2	HH-Rec	<0.005	<0.005	<0.005	<0.005	0.0035 J	0.0014 J	0.001 J	<0.005	0.001 J	<0.005	<0.005	<0.005	0.00062 J	<0.005	<0.005	<0.005	<0.005	0.0059
MT-11SB02	MT-11SB02(2.0)	10/5/2007	2	HH-Rec	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.026	
MT-11SB03	MT-11SB03(2.0)	10/5/2007	2	HH-Rec	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0255	
MT-11SB04	MT-11SB04(2.0)	10/5/2007	2	HH-Rec	<0.0052	0.0029 J	<0.0052	<0.0052	<0.0052	0.0069	<0.0052	<0.0052	0.0007 J	<0.0052	<0.0052	0.0025 J	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	0.0076
HH-Rec					na	na	13,800	1	0.1	1	1,400	1	10	na	1,900	1,800	na	na	1,100	1,400	1,400	13
HH-Res					na	na	5,900	0.43	0.04	0.43	620	0.43	4.3	na	820	770	na	na	480	600	620	5.6

TABLE 6
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Presidio FDS FSP
San Francisco, California

Sample Location	Sample ID	Sample Date	Sample Depth (ft bgs)	PAHs Criteria	Analytical Results (mg/kg - dry weight)																	
					Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	2-methylnaphthalene	Naphthalene	Phenanthrene	Pyrene	Carcinogenic PAHs, Total
FDS Section MT-11																						
MT-11SB05	MT-11SB05(2.0)	10/5/2007	2	HH-Rec	<0.0054	<0.0054	<0.0054	<0.0054	<0.0054	<0.0054	<0.0054	<0.0054	<0.0054	<0.0054	<0.0054	<0.0054	<0.0054	<0.0054	<0.0054	<0.0054	<0.027	
MT-11SB06	MT-11SB06(1.5)	10/5/2007	1.5	HH-Rec	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	0.021 J+,Cl	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11	0.011 J	0.0099 J	<0.55
MT-11SB07	MT-11SB07(2.0)	10/5/2007	2	HH-Rec	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	0.00055 J	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.026	
	DUP-1-100507	10/5/2007	2	HH-Rec	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	0.00087 J	0.00089 J	<0.0051	<0.0051	<0.0051	0.0011 J	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	0.0005 J	0.00087
MT-11SB08	MT-11SB08(2.0)	10/5/2007	2	HH-Rec	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	0.00061 J	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0255
FDS Section MT-12																						
MT-12SB01	MT-12SB01(2.0)	10/5/2007	2	HH-Res	<0.0054	<0.0054	<0.0054	<0.0054	0.0045 J	0.0015 J	0.0013 J	0.0041 J	0.0015 J	<0.0054	<0.0054	0.001 J	0.00066 J	<0.0054	<0.0054	<0.0054	0.00075 J	0.0116
MT-12SB02	MT-12SB02(2.0)	10/9/2007	2	HH-Res	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	0.00092 J	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.025
MT-12SB03	MT-12SB03(2.0)	9/25/2007	2	HH-Res	<0.027	<0.027	<0.027	<0.027	0.019 J	0.0043 J+	<0.027	<0.027	0.0037 J	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	0.027
MT-12SB04	MT-12SB04(2.0)	9/25/2007	2	HH-Res	<0.028	<0.028	<0.028	<0.028	<0.028	0.004 J	0.0083 J	<0.028	<0.028	<0.028	<0.028	<0.028	<0.028	<0.028	<0.028	0.0041 J	0.0031 J	0.004
FDS Section MT-13																						
MT-13SB01	MT-13SB01(2.0)	10/1/2007	2	HH-Res	<0.11	0.025 J	0.026 J	0.11 J	0.13	0.16	0.066 J	0.054 J	0.14	0.018 J	0.11	<0.11	0.051 J	0.017 J	0.017 J	0.066 J	0.19	0.594
	DUP-2-100107	10/1/2007	2	HH-Res	<0.27	<0.27	<0.27	0.058 J	0.11 J	0.15 J	0.068 J	<0.27	0.077 J	<0.27	0.086 J	<0.27	<0.27	<0.27	<0.27	0.076 J	0.12 J	0.395
MT-13SB02	MT-13SB02(2.0)	9/26/2007	2	HH-Res	<0.56	<0.56	<0.56	<0.56	<0.566 J	0.06 J	0.13 J	<0.566 J	0.14 J	<0.566 J	<0.56	<0.56	<0.566 J	<0.56	<0.56	<0.56	0.093 J	0.2
FDS Section MT-14																						
MT-14SB01	MT-14SB01(2.5)	8/11/2008	2.5	HH-Res	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051
	DUP1-081108	8/11/2008	2.5	HH-Res	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052
MT-14SB02	MT-14SB02(2)	8/11/2008	2	HH-Res	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055
MT-14SB03	MT-14SB03(2)	8/11/2008	2	HH-Res	<0.0054	<0.0054	<0.0054	<0.0054	<0.0054	<0.0054	<0.0054	<0.0054	<0.0054	<0.0054	<0.0054	<0.0054	<0.0054	<0.0054	<0.0054	<0.0054	<0.0054	<0.0054
MT-14SB04	MT-14SB04(1.5)	8/11/2008	1.5	HH-Res	<0.0052	<0.0052	0.00092 J	0.002 J	0.0014 J	0.0059	0.017	0.0011 J	0.0069	0.0024 J	0.0035 J	0.0073	0.0026 J	0.0087	0.013	0.054	0.011	0.0173
MT-14SB05	MT-14SB05(2.5)	8/12/2008	2.5	HH-Res	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055
MT-14SB06	MT-14SB06(2.5)	8/11/2008	2.5	HH-Res	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052	<0.0052
MT-14SB07	MT-14SB07(2.5)	8/13/2008	2.5	HH-Res	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027	<0.027
MT-14SB08	MT-14SB08(1.5)	8/12/2008	1.5	HH-Res	<0.011	<0.011	0.002 J	0.0054 J	0.0063 J	0.011	0.008 J	0.0038 J	0.0085 J	<0.011	0.012	0.0023 J	0.0034 J	0.0024 J	<0.011	0.012	0.019	0.035
MT-14SB09	MT-14SB09(2.5)	8/12/2008	2.5	HH-Res	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053	0.00082 J	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053	0.00082
	MT-14SB09(7)	8/12/2008	7	HH-Res	<0.053	<0.053	<0.053	<0.053	0.011 J	0.015 J	0.011 J	<0.053	0.031 J	<0.053	<0.053	0.012 J	<0.053	0.011 J	<0.053	0.027 J	0.019 J	0.057
MT-14SB10	MT-14SB10(1.5)	8/11/2008	1.5	HH-Res	<0.0055	0.0011 J	<0.0055	0.0032 J	0.0047 J	0.0097	0.0071	0.0027 J	0.0064	0.0028 J	0.0034 J	0.0015 J	0.0057	<0.0055	<0.0055	0.0012 J	0.0041 J	0.0267
MT-14SB11	MT-14SB11(1.5)	8/11/2008	1.5	HH-Res	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053	<0.0053
MT-14SB12	MT-14SB12(3.5)	8/12/2008	3.5	HH-Res	<0.0053	<0.0053	0.057	0.041	0.022	0.013	0.0038 J	0.0031 J	0.074	0.0023 J	0.028	0.0015 J	0.0013 J	<0.0053	<0.0053	0.0064	0.093	0.1531
MT-14SB13	MT-14SB13(1.5)	8/11/2008	1.5	HH-Res	<0.01	<0.01	<0.01	0.0021 J	0.0032 J	0.0047 J	0.0055 J	<0.01	0.0047 J	<0.01	0.0037 J	<0.01	0.0028 J	<0.01	<0.01	0.0025 J	0.0043 J	0.0147
MT-14SB14	MT-14SB14(1.5)	8/11/2008	1.5	HH-Res	<0.0051	<0.0051	<0.0051	<0.0051	0.00077 J	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	<0.0051	0.00082 J	0.00077
FDS Section MT-15																						
MT-15SB01	MT-15SB01(2.5)	9/25/2007	2.5	HH-Res	<0.017	<0.017	<0.017	0.0045 J	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	<0.017	0.0045
MT-15SB02	MT-15SB02(3.5)	9/28/2007	3.5	HH-Res	<1.1	<1.1	<1.1	0.18 J	0.3 J	0.34 J	0.41 J	<1.1	0.18 J	<1.1	<1.1	<1.1	0.22 J	<1.1	<1.1	<1.1	0.11 J	1
	DUP-3-092807	9/28/2007	3.5	HH-Res	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4	<1.4	<7
HH-Rec					na	na	13,800	1	0.1	1	1,400	1	10	na	1,900	1,800	na	na	1,100	1,400	1,400	13
HH-Res					na	na	5,900	0.43	0.04	0.43	620	0.43	4.3	na	820	770	na	na	480	600	620	5.6

TABLE 6
SUMMARY OF SOIL RESULTS FOR PAHS
Presidio FDS FSP
San Francisco, California

Sample Location	Sample ID	Sample Date	Sample Depth (ft bgs)	PAHs Criteria	Analytical Results (mg/kg - dry weight)																	
					Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	2-methylnaphthalene	Naphthalene	Phenanthrene	Pyrene	Carcinogenic PAHs, Total
FDS Section MT-15																						
MT-15SB03	MT-15SB03(3.5)	9/28/2007	3.5	HH-Res	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	0.00088 J	<0.0055	<0.0055	<0.0055	<0.0055	0.00096 J	<0.0055	<0.0055	<0.0055	<0.0055	<0.0055	0.0012 J	0.00088
FDS Section MT-16																						
MT-16SB01	MT-16SB01(1.5)	9/26/2007	1.5	HH-Res	<0.027	<0.027	<0.027	0.006 J	0.011 J	0.017 J	0.014 J	0.0059 J	<0.027	<0.0277 J	0.0077 J	<0.027	<0.0277 J	0.027 J	<0.027	0.0069 J	0.011 J	0.0399
MT-16SB02	MT-16SB02(1.5)	9/26/2007	1.5	HH-Res	<0.0059	0.0089	0.0036 J	0.018	0.029 J	0.034 J	0.034 J	0.0095 J	0.019	0.0067 J	0.0092	<0.0059	0.023 J	0.0059 J	<0.0059	0.003 J	0.02	0.11
MT-16SB03	MT-16SB03(1.5)	9/26/2007	1.5	HH-Res	0.00088 J	0.0015 J	0.0053 J	0.019	0.021	0.028	0.013 J+	0.012	0.026	0.012	0.028	0.0012 J	0.015	0.0043 J	0.0024 J	0.017	0.035	0.106
FDS Section MT-17																						
MT-17SB03	MT-17SB03(3.5)	9/27/2007	3.5	HH-Res	<0.0056	<0.0056	<0.0056	<0.0056	<0.0056	<0.0056	<0.0056	<0.0056	<0.0056	<0.0056	<0.0056	<0.0056	<0.0056	<0.0056	<0.0056	<0.0056	<0.0056	<0.028
HH-Rec					na	na	13,800	1	0.1	1	1,400	1	10	na	1,900	1,800	na	na	1,100	1,400	1,400	13
HH-Res					na	na	5,900	0.43	0.04	0.43	620	0.43	4.3	na	820	770	na	na	480	600	620	5.6

Abbreviations:
"--" - not analyzed
<0.50 - Compound not detected at or above indicated laboratory reporting limit
ft bgs - feet below ground surface
mg/kg - Milligrams per kilogram
na - not applicable
PAHs - Polynuclear Aromatic Hydrocarbons
CI - see narrative
J - estimated value
Y - chromatographic pattern does not resemble standard

Notes:
Abbreviations for Cleanup Levels from Water Board Order R2-2003-0080:
HH-Rec (Table 1) Soil Cleanup Levels for the Protection of Human Health, Recreational
HH-Res (Table 1) Soil Cleanup Levels for the Protection of Human Health, Residential

Table 7
FDS Section Summary by Closure Group
Presidio of San Francisco, California

FDS Closure Phase I	FDS Closure Phase II (Area B)	FDS Closure Phase II (Area A)	FDS Closure Phase III	Priority One
(Closure request in review)				(Closed with 637 Area)
27 Sections	29 Sections	4 Sections	6 Sections	4 Sections
Area 5 Section A	BR1-1	BR9-1	BR5-2	CF-2 *
Area 5 Section B	BR1-2	CF-4 * (Commissary / PX CAP)	BR10-1	CF-3 *
Area 5 Section C	BR2-2	CF-12 * (Commissary / PX CAP)	MT-4	CF-4 *
Area 5 Section D	BR3-1	MT-2	MT-6 (1349 CAP)	CF-12 *
Area 6 Section A	BR3-2		MT-7 (1349 CAP)	
Area 6 Section B	BR5-3		MT-9	
BR2-1	BR6-1			
BR2-3	BR6-3			
BR3-3	BR6-5 (Commissary / PX CAP)			
BR3-4	BR7-1			
BR3-5	BR7-2			
BR4-1	BR8-1 (1065 CAP)			
BR6-2	BR10-2			
BR6-4	BR10-3			
BR11-1	BR12-1			
BR14-1	BR13-1			
CF-1	BR13-2			
CF-2 *	BR15-1			
CF-3 *	BR16-1			
CF-6	MT-3			
CF-7	MT-5			
CF-8	MT-10			
CF-9	MT-11			
CF-10	MT-12			
CF-11	MT-13			
MT-1	MT-14			
MT-8	MT-15			
	MT-16			
	MT-17			

Abbreviations:

FDS - Fuel Distribution System

* - Closure for FDS Section requested in two submittals.

Table 8
Summary of FDS Closure Phase II
Presidio of San Francisco, California

FDS Section	Rationale for Closure Request
1.) No Further Action - Site Closure Criteria met through Historical Sampling	
BR8-1	Data gaps addressed as part Phase IIA interim remedial action at the Site (MACTEC, 2007). See Appendix G.
BR13-2	Data gaps addressed by Army Mini-CAP (MW, 1999). See Appendix H.
BR15-1 BR16-1	FDS Section met closure criteria through Army FDS removal program.
2.) No Further Action - Site Closure Criteria data gaps met through FDS Investigation.	
BR1-1	Stockpile soil and abandoned pipeline sampling frequency addressed; results below cleanup levels.
BR1-2	Soil samples potentially above applicable cleanup levels and stockpile sampling frequency was addressed; results below cleanup levels.
BR3-1	Soil samples potentially above applicable cleanup levels addressed.
MT-5	Soil samples potentially above applicable cleanup levels and abandoned pipeline sampling frequency addressed.
BR5-3	Unsampled lengths of abandoned piping, including some that failed pressure test criteria, addressed.
BR6-1 BR7-2	Lack of stockpile sampling addressed.
BR6-3 MT-10	Soil sample potentially above applicable cleanup levels addressed.
BR7-1 MT-11 MT-12	Stockpile sample potentially above applicable cleanup levels addressed.
MT-14	Soil samples potentially above applicable cleanup levels and potential groundwater impact addressed; results below cleanup levels.
BR10-2	Soil sample potentially above FW cleanup levels confirmed to be above FW cleanup levels, but not above HH-Res Cleanup levels. No groundwater impacts to freshwater stream. Excavation in vicinity of sample BR10-2SB01, or no further action, recommended. A land use control is not recommended.
BR10-3	Soil characterization addressed.
BR13-1	Soil sample potentially above applicable cleanup levels and soil characterization addressed.

Table 8
Summary of FDS Closure Phase II
 Presidio of San Francisco, California

FDS Section	Rationale for Closure Request
3.) No Further Action - Site Closure Criteria Data Gaps Addressed and Land Use Control Recommended	
BR2-2	Further excavation limited by second concrete slab and by Building 1220. Land use notification recommended in limited area adjacent Building 1220.
BR3-2	Further excavation limited by tree. Land use control prohibiting residential use and requiring notification prior to excavation recommended in limited area adjacent to tree.
BR6-5	Remediation was addressed as part of the Commissary/PX CAP. No further action is recommended as part of FDS data gap analysis (T&R, 2005).
BR12-1	Vertical extent of soil above applicable cleanup levels addressed.
MT-3	Land use notification prior to excavation in FDS overburden recommended.
MT-13	Land use notification prior to excavation in FDS overburden recommended.
MT-15	Land use notification prior to excavation in FDS overburden recommended.
MT-16	Land use notification prior to excavation in FDS overburden recommended.
MT-17	Land use notification prior to excavation in FDS overburden recommended.

Abbreviations:

Army - US Army Corps of Engineers

FDS - Fuel Distribution System

LTDD - Low Temperature Thermal Desorption

Mini-CAP - Mini Corrective Action Plan

TPH - total petroleum hydrocarbons

References:

MACTEC, 2007. Final Corrective Action Plan Building 1065 Area, Presidio of San Francisco, California. January.

Montgomery Watson ("MW"), 1999. Draft Round 1 Group 2 Mini-Corrective Action Plans, Petroleum Sites Cleanup Program, Presidio of San Francisco, California. May.

Table 9
Summary of FDS Closure Phase III
 Presidio of San Francisco, California

FDS Section	Trust Recommendations for Proposed Future Work
1.) Additional Investigation or Remedial Action Recommended	
BR5-2	Depth to water at Site estimated to be between 20 and 25 ft bgs (T&R, 2007). If depth to water is less than 20 ft bgs, a grab groundwater sample will be collected to confirm lack of chemical impact.
BR10-1	Groundwater investigation to assess TPH migration potential to nearby freshwater stream.
MT-4	Excavate soil above applicable cleanup levels for TPH and cPAHs by including section in Building 1213 excavation.
MT-9	Collect two additional soil samples to assess lateral extent of TPH above applicable cleanup levels in overburden located in the vicinity of sample location MT-9SB02. Land use notification recommended.
2.) Closed as part of CAP Site - Report Not Yet Available	
MT-6 MT-7	Future remedial action is being conducted as part of the 1349 CAP (BBL, 2006).

Abbreviations:

Army - US Army Corps of Engineers

CAP - Corrective Action Plan

cPAHs - total carc`

FDS - Fuel Distribution System

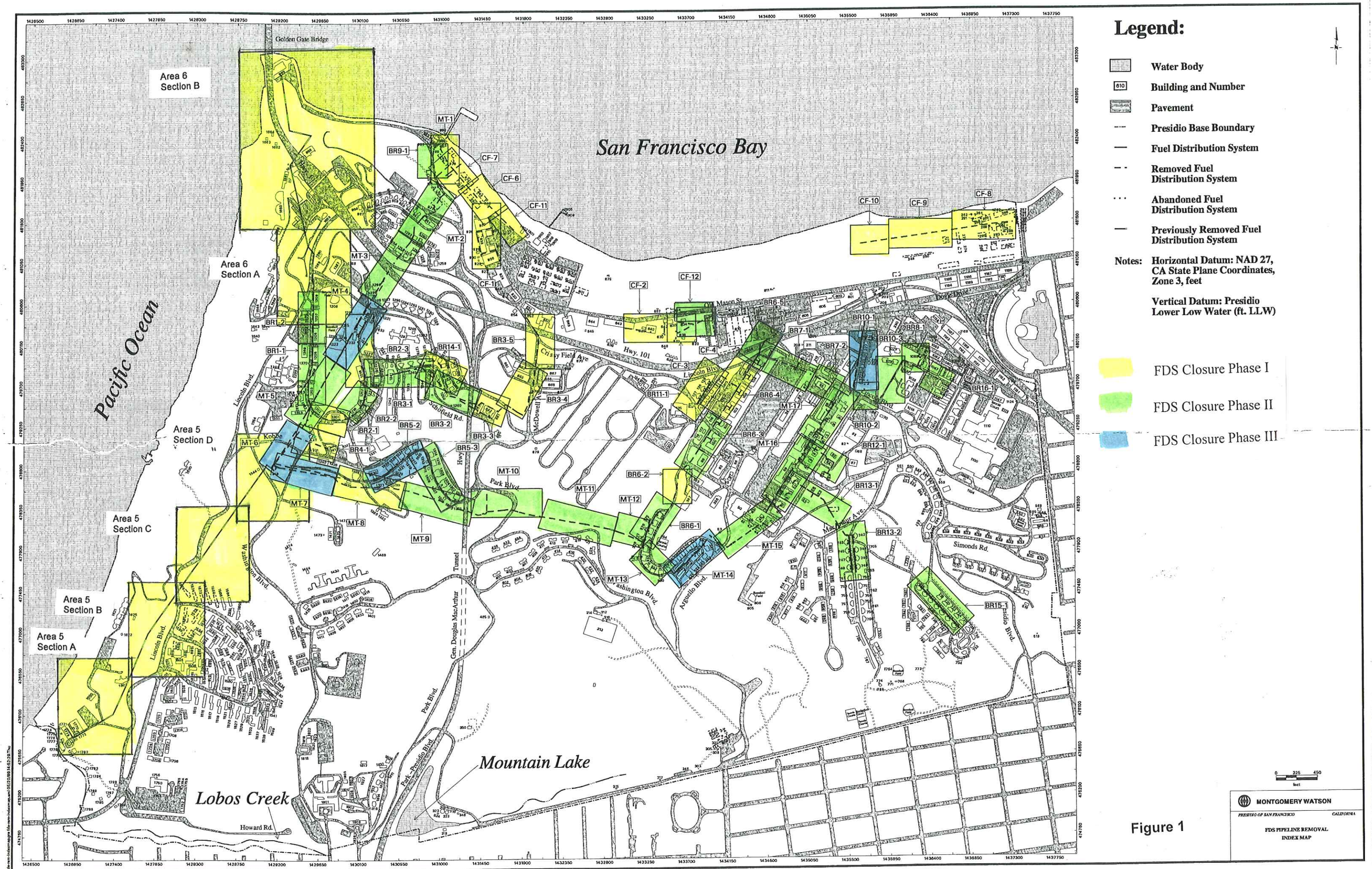
TPH - total petroleum hydrocarbons

References:

Blasland, Bouck & Lee, Inc. ("BBL"), 2006. Final Corrective Action Plan, Building 1349 Study Area, Presidio of San Francisco, California. February.

Erler & Kalinowski, Inc. ("EKI"), 2007. Draft Field Sampling Plan Addendum No. 1 - Former Fuel Distribution System ("FDS") Closure Phases II and III, Infantry Terrace (FDS Section MT-14) Area, Presidio of San Francisco, California. September.

Treadwell & Rollo, Inc ("T&R"), 2005. Final Corrective Action Plan, Commissary/PX Study Area, Presidio of San Francisco, California. December.



Legend:

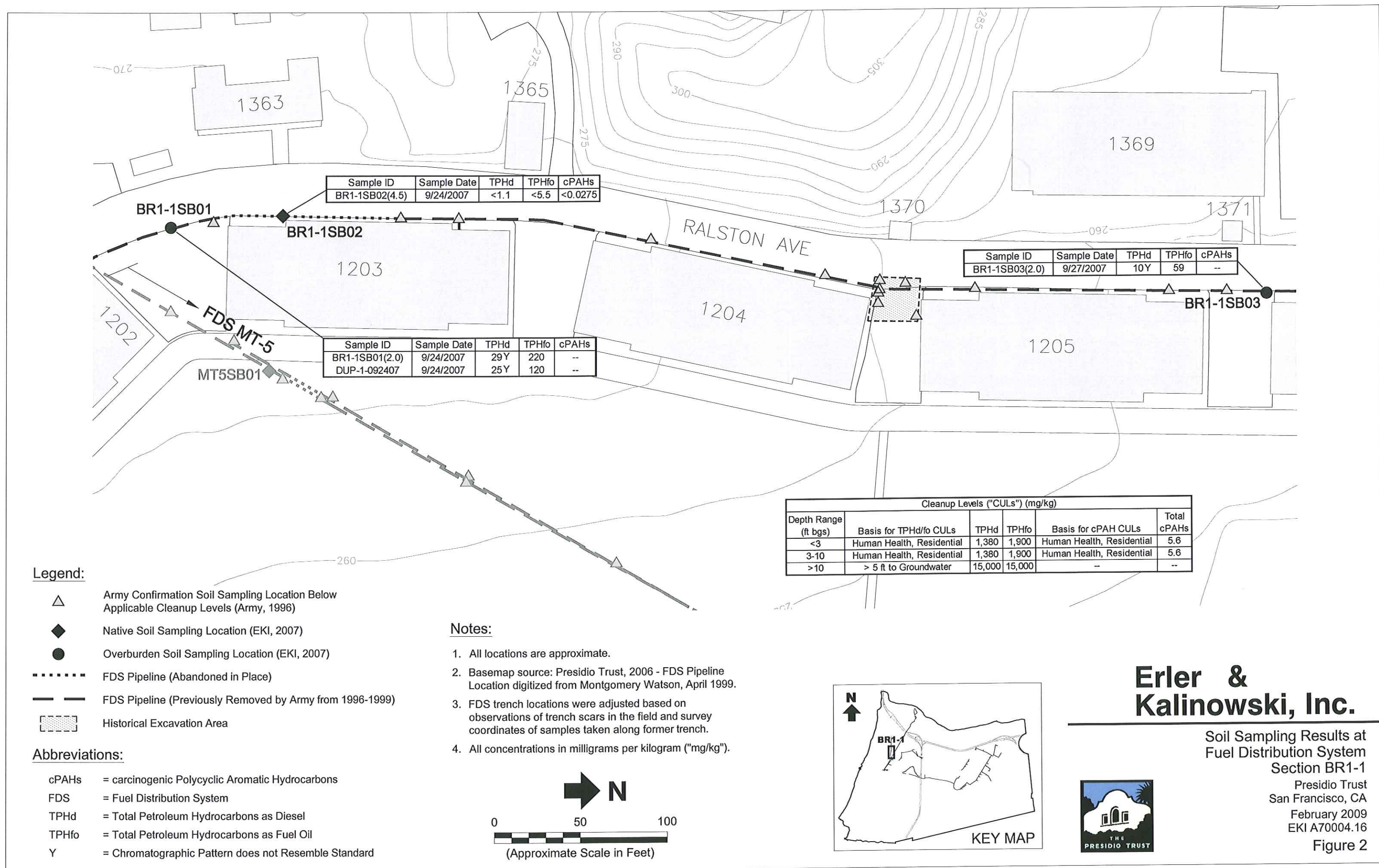
- Water Body
- Building and Number
- Pavement
- Presidio Base Boundary
- Fuel Distribution System
- Removed Fuel Distribution System
- Abandoned Fuel Distribution System
- Previously Removed Fuel Distribution System

Notes: Horizontal Datum: NAD 27,
CA State Plane Coordinates,
Zone 3, feet

Vertical Datum: Presidio
Lower Low Water (ft. LLW)

- FDS Closure Phase I
- FDS Closure Phase II
- FDS Closure Phase III

Figure 1

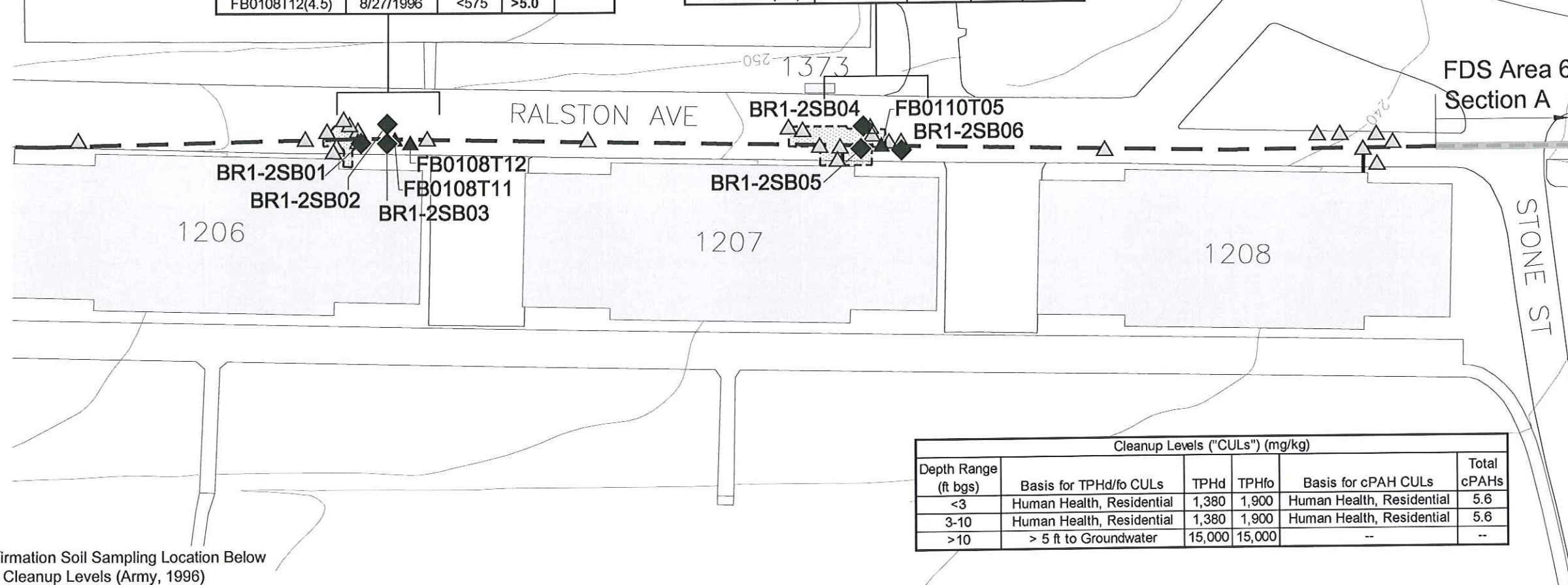


EKI Data, 2007				
Sample ID	Sample Date	TPHd	TPHfo	cPAHs
BR1-2SB01(3.0)	9/24/2007	5.1Y	18	0.00582
BR1-2SB01(6.5)	9/24/2007	750	440	0.15
BR1-2SB02(3.0)	9/24/2007	<1.2	<5.8	<0.029
BR1-2SB02(6.5)	9/24/2007	<1.1	<5.7	<0.0285
BR1-2SB03(6.5)	9/24/2007	1,100Y	890	0.112

Army Data, 1996			
Sample ID	Sample Date	TPHi	PAHi
FB0108T11(6.0)	8/26/1996	>1,420	>5.0
FB0108T12(4.5)	8/27/1996	<575	>5.0

EKI Data, 2007				
Sample ID	Sample Date	TPHd	TPHfo	cPAHs
BR1-2SB04(3.0)	9/24/2007	4.3Y	28	0.0022
BR1-2SB04(6.5)	9/24/2007	<1.1	<5.7	<0.0285
DUP-3-092407	9/24/2007	<1.1	<5.7	<0.0285
BR1-2SB05(6.5)	9/24/2007	4.7Y	28	<0.0295
BR1-2SB05(9.0)	9/24/2007	<1.2	<6.1	<0.03
BR1-2SB06(6.5)	9/24/2007	<1.2	<5.8	<0.0285

Army Data, 1996			
Sample ID	Sample Date	TPHi	PAHi
FB0110T05(6.0)	8/12/1996	>1,420	>5.52



Legend:

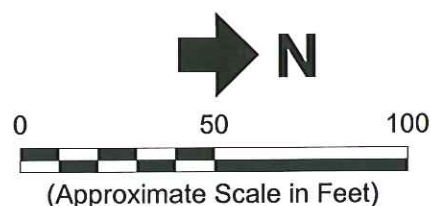
- △ Army Confirmation Soil Sampling Location Below Applicable Cleanup Levels (Army, 1996)
- ▲ Army Confirmation Soil Sampling Location Above Applicable Cleanup Levels (Army, 1996)
- ◆ Native Soil Sampling Location (EKI, 2007)
- FDS Pipeline (Previously Removed by Army from 1996-1999)
- FDS Pipeline (Previously Removed by Army before 1996)
- ▨ Historical Excavation Area

Abbreviations:

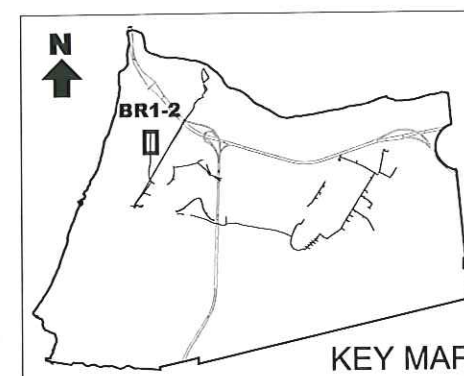
- cPAHs = carcinogenic Polycyclic Aromatic Hydrocarbons
- FDS = Fuel Distribution System
- PAHi = Polycyclic Aromatic Hydrocarbon Immunoassay Analysis
- TPHd = Total Petroleum Hydrocarbons as Diesel
- TPHfo = Total Petroleum Hydrocarbons as Fuel Oil
- TPHi = Total Petroleum Hydrocarbons by Immunoassay Analysis
- Y = Chromatographic Pattern does not Resemble Standard

Notes:

- All locations are approximate.
- Basemap source: Presidio Trust, 2006 - FDS Pipeline Location digitized from Montgomery Watson, April 1999.
- FDS trench locations were adjusted based on observations of trench scars in the field and survey coordinates of samples taken along former trench.
- Reported chemical concentrations above cleanup levels are in **bold**.
- All concentrations in milligrams per kilogram ("mg/kg").



Cleanup Levels ("CULs") (mg/kg)					
Depth Range (ft bgs)	Basis for TPHd/fo CULs	TPHd	TPHfo	Basis for cPAH CULs	Total cPAHs
<3	Human Health, Residential	1,380	1,900	Human Health, Residential	5.6
3-10	Human Health, Residential	1,380	1,900	Human Health, Residential	5.6
>10	> 5 ft to Groundwater	15,000	15,000	--	--



Erler & Kalinowski, Inc.

Soil Sampling Results at Fuel Distribution System Section BR1-2

Presidio Trust
San Francisco, CA
February 2009
EKI A70004.16

Figure 3

Cleanup Levels ("CULs") (mg/kg)					
Depth Range (ft bgs)	Basis for TPHd/fo CULs	TPHd	TPHfo	Basis for cPAH CULs	Total cPAHs
<3	Human Health, Residential	1,380	1,900	Human Health, Residential	5.6
3-10	Human Health, Residential	1,380	1,900	Human Health, Residential	5.6
>10	> 5 ft to Groundwater	15,000	15,000	--	--

EKI Data, 2007				
Sample ID	Sample Date	TPHd	TPHfo	cPAHs
BR2-2SB01(3.0)	10/9/2007	74Y	280	0.0463
BR2-2SB02(2.0)	10/9/2007	710	3,100	0.26
Army Data, 1996				
Sample ID	Sample Date	TPHi	PAHi	
FB02007L03(2.5)	12/17/1996	>575	>5.0	

Legend:

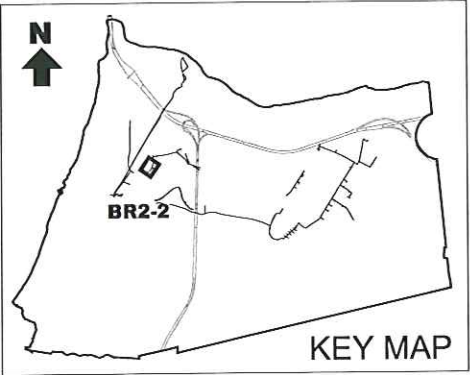
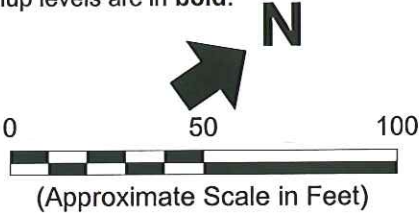
- △ Army Confirmation Soil Sampling Location Below Applicable Cleanup Levels (Army, 1996)
- ▲ Army Confirmation Soil Sampling Location Above Applicable Cleanup Levels (Army, 1996)
- ◆ Native Soil Sampling Location (EKI, 2007)
- FDS Pipeline (Abandoned in Place)
- FDS Pipeline (Previously Removed by Army from 1996-1999)
- Soil Sample Above Applicable Cleanup Levels
- Approximate Extent of Land Use Notification Area

Abbreviations:

- cPAHs = carcinogenic Polycyclic Aromatic Hydrocarbons
- ft bgs = Feet Below Ground Surface
- FDS = Fuel Distribution System
- TPHd = Total Petroleum Hydrocarbons as Diesel
- TPHfo = Total Petroleum Hydrocarbons as Fuel Oil
- Y = Chromatographic Pattern does not Resemble Standard

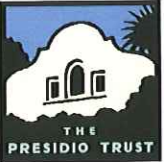
Notes:

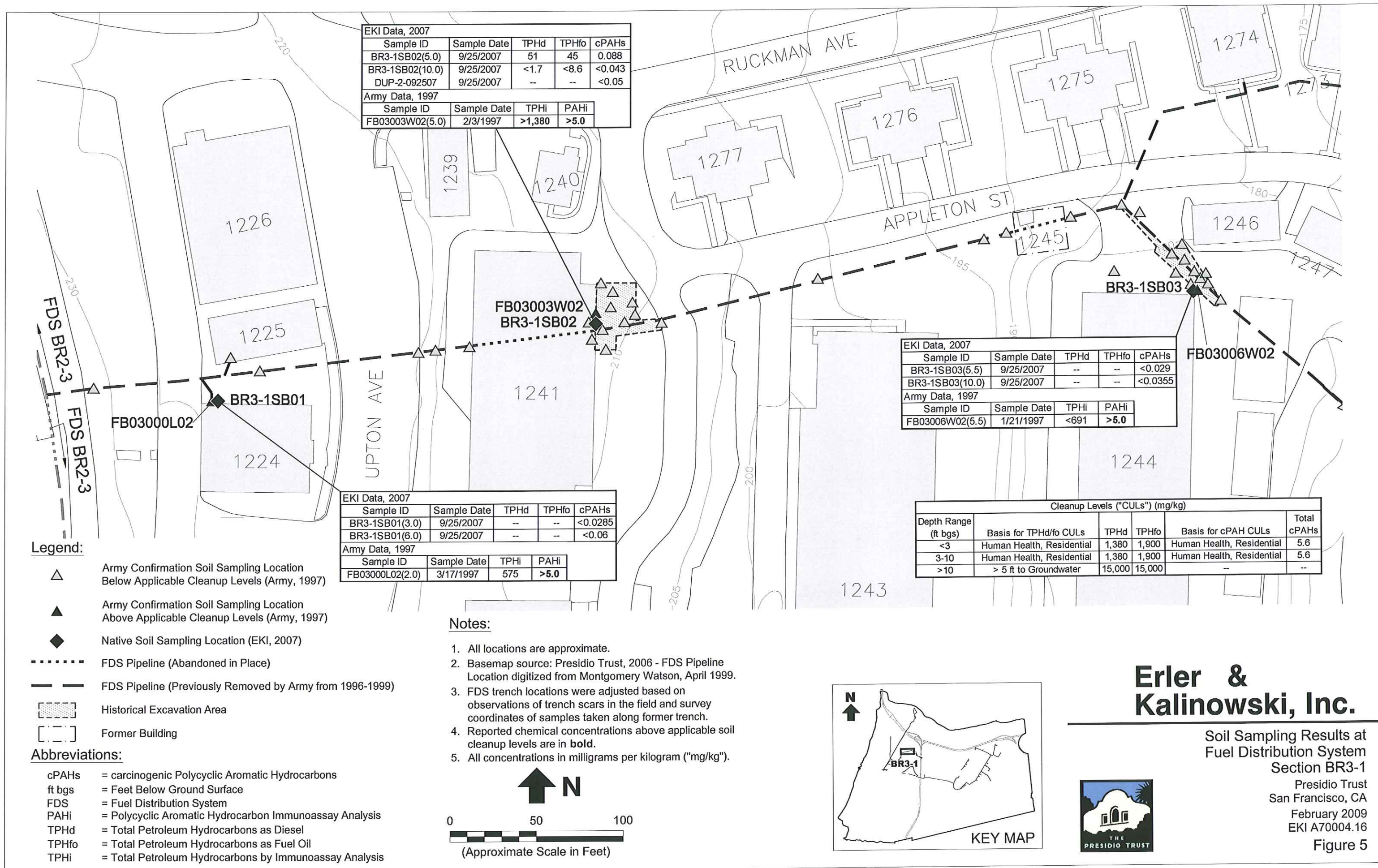
1. All locations are approximate.
2. Basemap source: Presidio Trust, 2006 - FDS Pipeline Location digitized from Montgomery Watson, April 1999.
3. BR2-2SB03 not sampled due to refusal due at a second concrete slab located at 1 ft bgs.
4. All concentrations in milligrams per kilogram ("mg/kg").
5. Reported chemical concentrations above applicable soil cleanup levels are in **bold**.

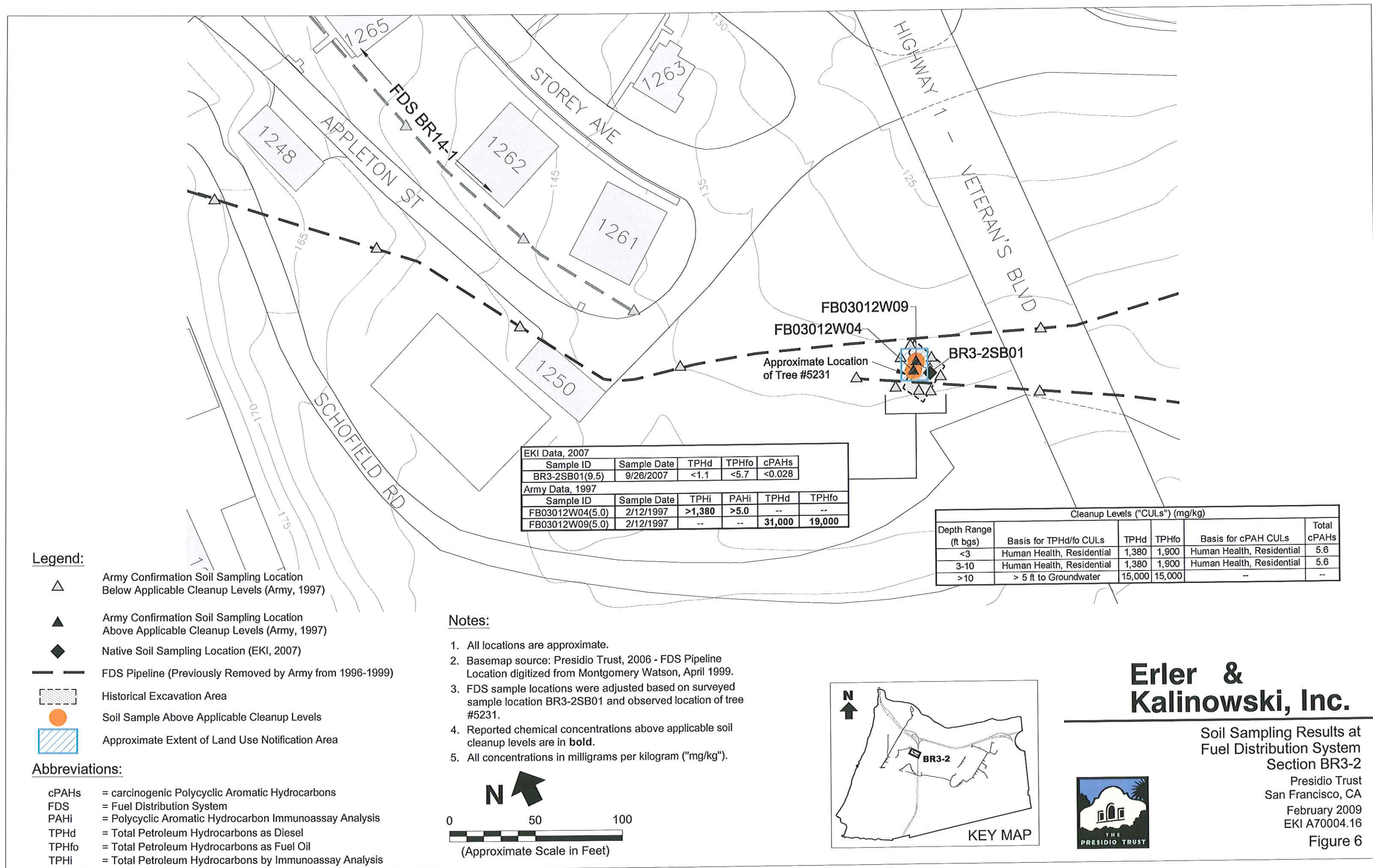


Erler & Kalinowski, Inc.

Soil Sampling Results at
Fuel Distribution System
Section BR2-2
Presidio Trust
San Francisco, CA
February 2009
EKI A70004.16
Figure 4







EKI Data, 2007				
Sample ID	Sample Date	TPHd	TPHfo	cPAHs
BR5-2SB01(2.5)	9/24/2007	1,200Y	1,600	0.071
BR5-2SB02(1.0)	9/28/2007	270Y	420	0.0415
BR5-2SB03(2.5)	9/28/2007	<1.8	<8.9	<0.09
BR5-2SB04(3.0)	9/28/2007	9,700	8,400	10.63
BR5-2SB05(2.5)	9/24/2007	2,300	2,000	3.127

Army Data, 1997			
Sample ID	Sample Date	TPHi	PAHi
FB05006L01(2.0)	5/6/1997	>1,420	>5.0

Treadwell & Rollo, 2004		
Sample ID	TPHd	TPHfo
1326FDSEX101[2]	8,000 H	6,000Y
1326FDSEX102[2]	230 HY	370 Y
1326FDSEX103[2]	950	750Y
1326FDSEX104[2]	91	56 Y
1326FDSEX105[2]	560	410 Y
DUP101403A	1,300	1,100 Y

Sample ID	Sample Date	TPHd	TPHfo	cPAHs
BR5-2SB07(1.5)	9/24/2007	7.8Y	46	0.00455
BR5-2SB08(1.5)	9/28/2007	690Y	2,800	<13.5

Legend:

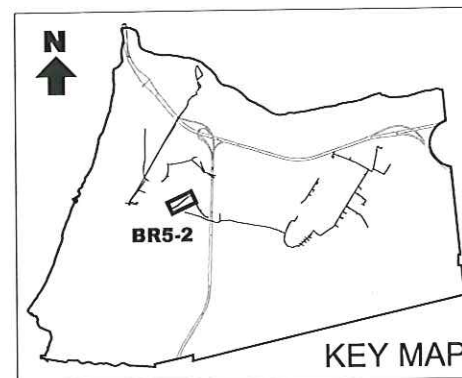
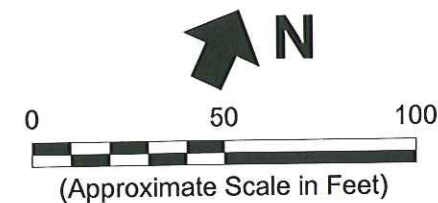
	Army Confirmation Soil Sampling Location Below Applicable Cleanup Levels (Army, 1996)
	Army Confirmation Soil Sampling Location Above Applicable Cleanup Levels (Army, 1996)
	Native Soil Sampling Location (EKI, 2007)
	Overburden Soil Sampling Location (EKI, 2007)
	Native Soil Sampling Location (T&R, 2004)
	FDS Pipeline (Previously Removed by Army from 1996-1999)
	High Pressure Natural Gas Pipeline
	Historical Excavation Area
	Soil Sample Above Applicable Cleanup Levels
	Proposed Grab Groundwater Location
	Approximate Extent of Land Use Notification Area

Abbreviations:

cPAHs	= carcinogenic Polycyclic Aromatic Hydrocarbons
FDS	= Fuel Distribution System
PAHi	= Polycyclic Aromatic Hydrocarbon Immunoassay Analysis
TPHd	= Total Petroleum Hydrocarbons as Diesel
TPHfo	= Total Petroleum Hydrocarbons as Fuel Oil
TPHi	= Total Petroleum Hydrocarbons by Immunoassay Analysis
Y	= Chromatographic Pattern does not Resemble Standard

Notes:

- All locations are approximate.
- Basemap source: Presidio Trust, 2006 - FDS Pipeline Location digitized from Montgomery Watson, April 1999.
- FDS trench locations were adjusted based on observations of trench scars in the field and survey coordinates of samples taken along former trench.
- Approximate area of utility trench excavation where visually affected soil remaining in place was observed along the northern trench wall, in bedding sand beneath the high pressure natural gas pipeline.
- Reported chemical concentrations above soil cleanup levels are in **bold**.
- All concentrations in milligrams per kilogram ("mg/kg").



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Soil Sampling Results at Fuel Distribution System Section BR5-2

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Figure 7



Cleanup Levels ("CULs") (mg/kg)					
Depth Range (ft bgs)	Basis for TPHd/fo CULs	TPHd	TPHfo	Basis for cPAH CULs	Total cPAHs
<3	Human Health, Residential	1,380	1,900	Human Health, Residential	5.6
3-10	Human Health, Residential	1,380	1,900	Human Health, Residential	5.6
>10	> 5 ft to Groundwater	15,000	15,000	--	--

Sample ID	Sample Date	TPHd	TPHfo	cPAHs
BR5-3SB04(2.5)	9/25/2007	<1	<5.2	<0.0255

Sample ID	Sample Date	TPHd	TPHfo	cPAHs
BR5-3SB01(2.5)	9/25/2007	5.5 Y	52	<0.13

Sample ID	Sample Date	TPHd	TPHfo	cPAHs
BR5-3SB02(2.5)	9/25/2007	<1	6.7	0.0073

Sample ID	Sample Date	TPHd	TPHfo	cPAHs
BR5-3SB03(2.5)	9/25/2007	<1	<5.2	<0.026

Legend:

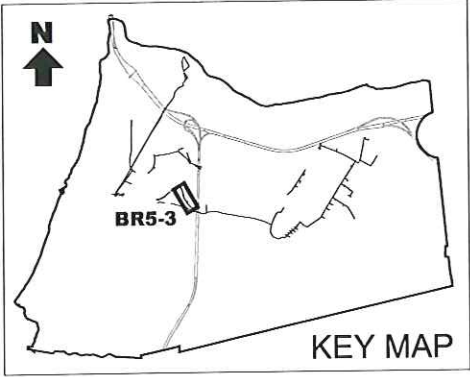
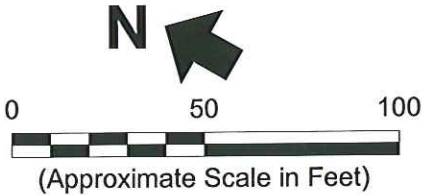
- △ Army Confirmation Soil Sampling Location Below Applicable Cleanup Levels (Army, 1997)
- ◆ Native Soil Sampling Location (EKI, 2007)
- Overburden Soil Sampling Location (EKI, 2007)
- FDS Pipeline (Abandoned in Place)
- FDS Pipeline (Previously Removed by Army from 1996-1999)
- ▨ Historical Excavation Area

Abbreviations:

- cPAHs = carcinogenic Polycyclic Aromatic Hydrocarbons
- FDS = Fuel Distribution System
- TPHd = Total Petroleum Hydrocarbons as Diesel
- TPHfo = Total Petroleum Hydrocarbons as Fuel Oil
- Y = Chromatographic Pattern does not Resemble Standard

Notes:

- All locations are approximate.
- Basemap source: Presidio Trust, 2006 - FDS Pipeline Location digitized from Montgomery Watson, April 1999.
- FDS trench locations were adjusted based on observations of trench scars in the field and survey coordinates of samples taken along former trench.
- All concentrations in milligrams per kilogram ("mg/kg").



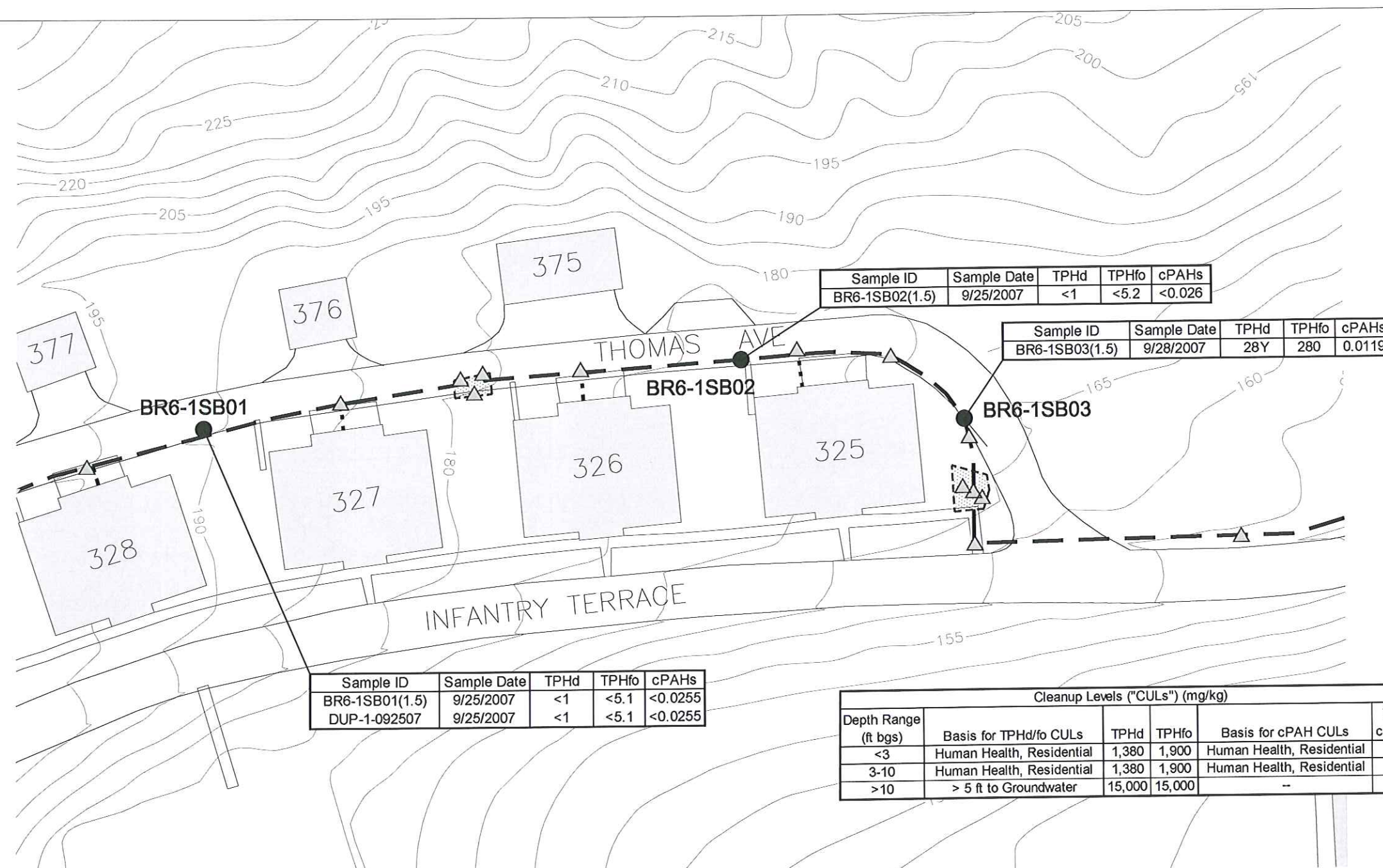
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Soil Sampling Results at
Fuel Distribution System
Section BR5-3

Presidio Trust
San Francisco, CA
February 2009
EKI A70004.16

Figure 8





Legend:

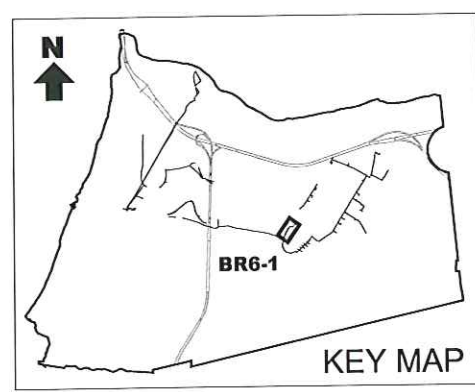
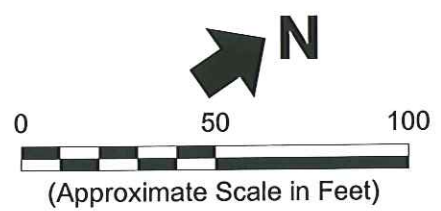
- Army Confirmation Soil Sampling Location Below Applicable Cleanup Levels (Army, 1996)
- Overburden Soil Sampling Location (EKI, 2007)
- FDS Pipeline (Abandoned in Place)
- FDS Pipeline (Previously Removed by Army from 1996-1999)
- Historical Excavation Area

Abbreviations:

- cPAHs = carcinogenic Polycyclic Aromatic Hydrocarbons
- FDS = Fuel Distribution System
- TPHd = Total Petroleum Hydrocarbons as Diesel
- TPHfo = Total Petroleum Hydrocarbons as Fuel Oil
- Y = Chromatographic Pattern does not Resemble Standard

Notes:

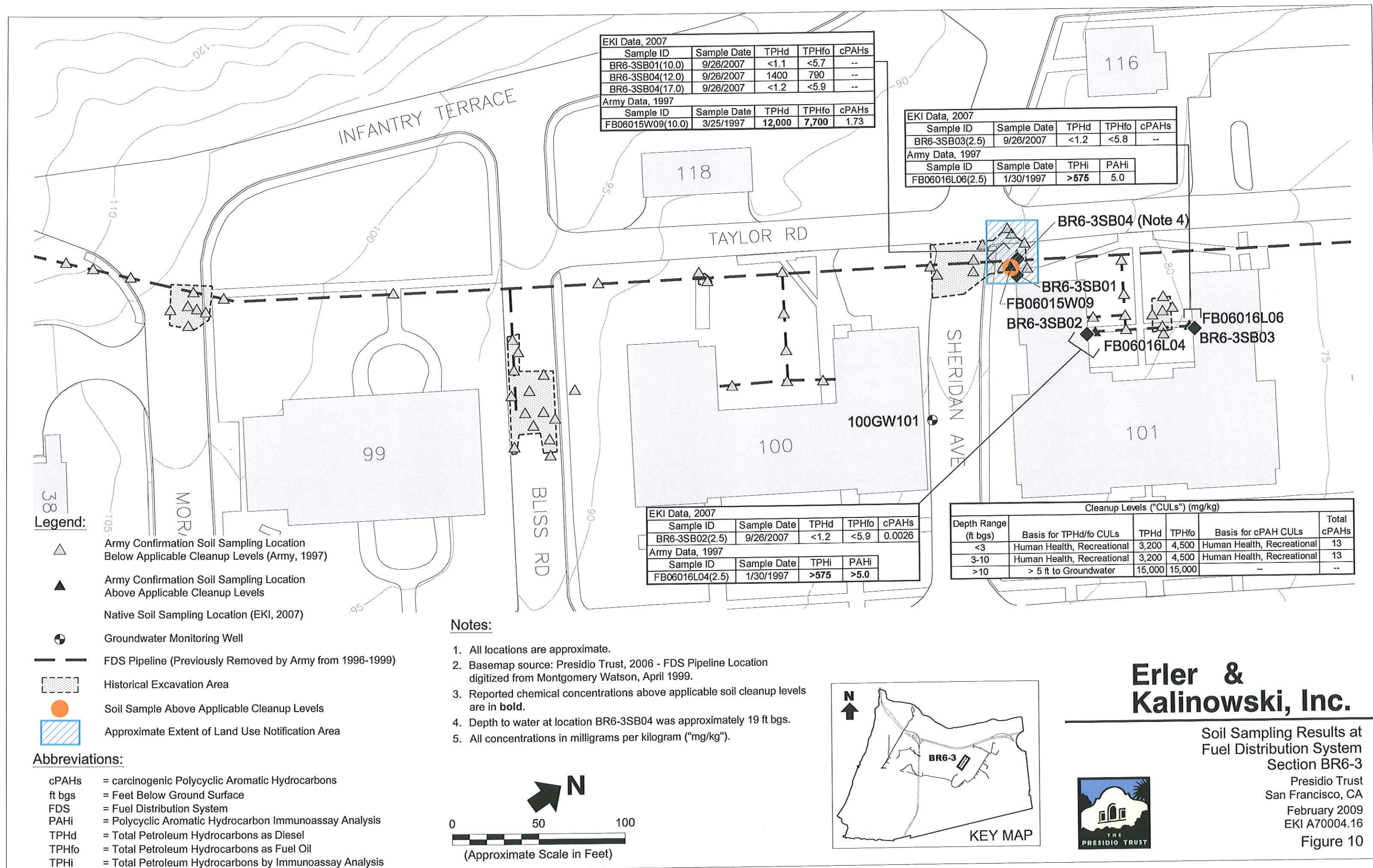
- All locations are approximate.
- Basemap source: Presidio Trust, 2006 - FDS Pipeline Location digitized from Montgomery Watson, April 1999.
- FDS trench locations were adjusted based on observations of trench scars in the field and survey coordinates of samples taken along former trench.
- All concentrations in milligrams per kilogram ("mg/kg").

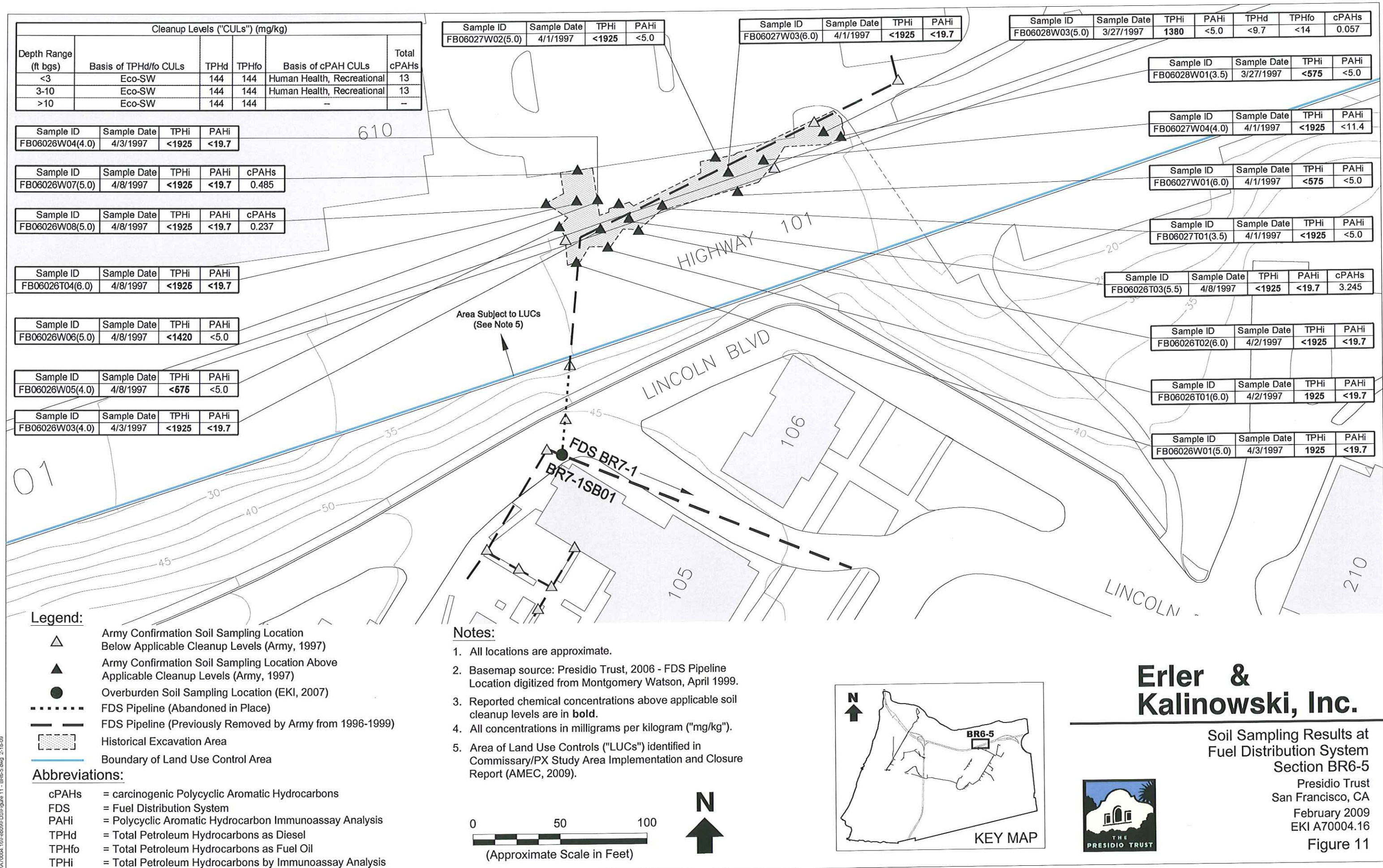


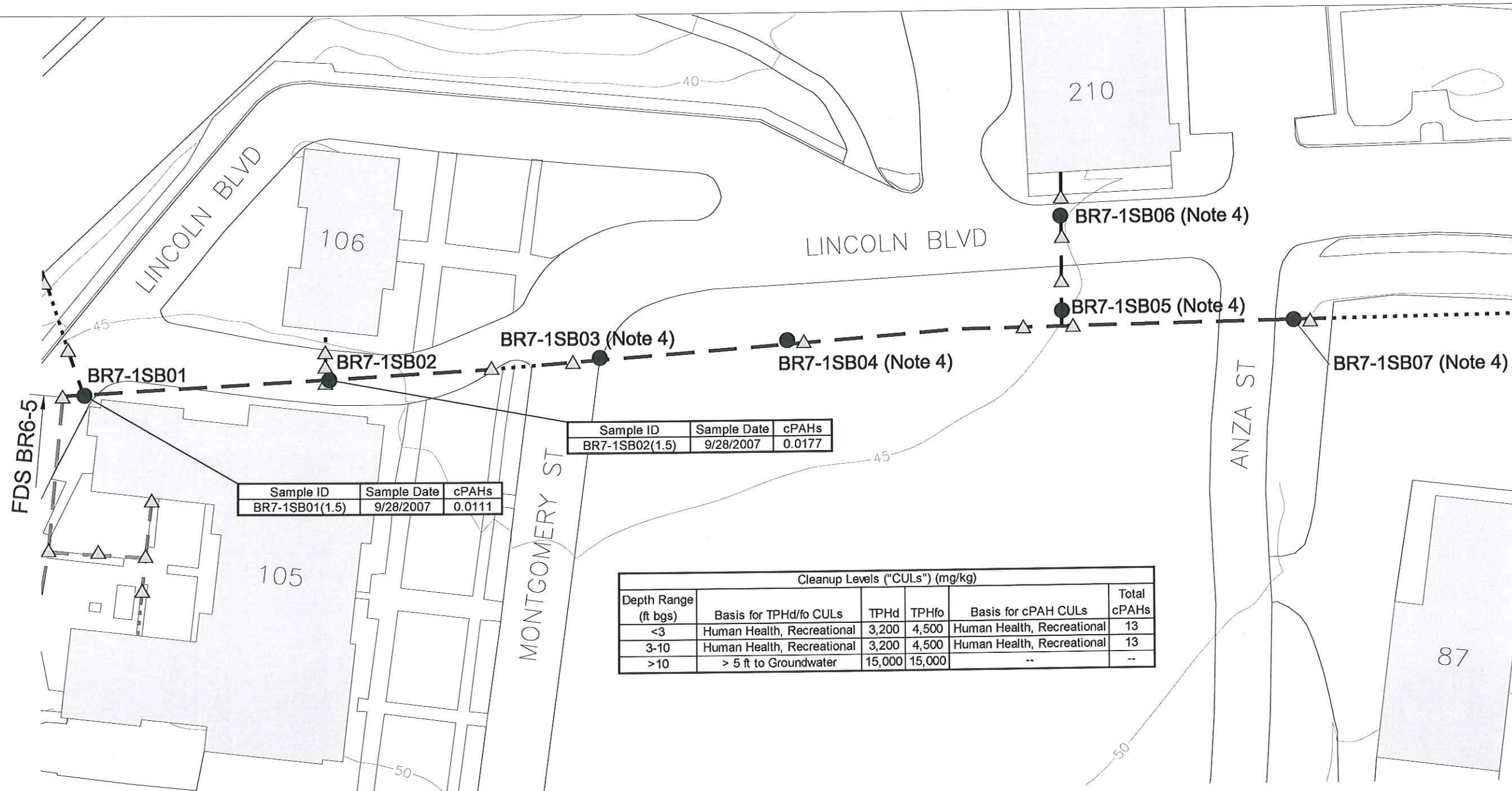
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Soil Sampling Results at
 Fuel Distribution System
 Section BR6-1
 Presidio Trust
 San Francisco, CA
 February 2009
 EKI A70004.16
 Figure 9









Legend:

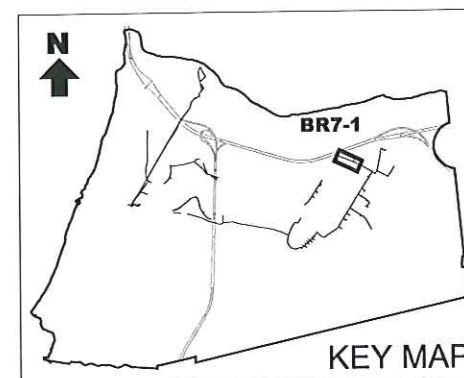
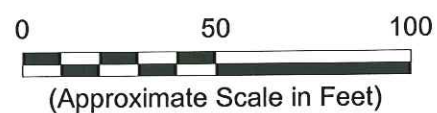
- Army Confirmation Soil Sampling Location Below Applicable Cleanup Levels (Army, 1997)
- Overburden Soil Sampling Location (EKI, 2007)
- FDS Pipeline (Abandoned in Place)
- FDS Pipeline (Previously Removed by Army from 1996-1999)

Abbreviations:

- cPAHs = carcinogenic Polycyclic Aromatic Hydrocarbons
- FDS = Fuel Distribution System
- TPHd = Total Petroleum Hydrocarbons as Diesel
- TPHfo = Total Petroleum Hydrocarbons as Fuel Oil

Notes:

- All locations are approximate.
- Basemap source: Presidio Trust, 2006 - FDS Pipeline Location digitized from Montgomery Watson, April 1999.
- FDS trench locations were adjusted based on observations of trench scars in the field and survey coordinates of samples taken along former trench.
- Stockpiled soil potentially above cleanup levels was to be sampled at locations BR7-1SB07. Since LTDD soil was encountered at locations BR7-1SB04 to BR7-1SB07, the samples were collected but not analyzed.
- All concentrations in milligrams per kilogram ("mg/kg").



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Soil Sampling Results at Fuel Distribution System Section BR7-1

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EKI A70004.16

Figure 12




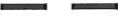



Cleanup Levels ("CULs") (mg/kg)					
Depth Range (ft bgs)	Basis for TPHd/fo CULs	TPHd	TPHfo	Basis for cPAH CULs	Total cPAHs
<3	Human Health, Recreational	3,200	4,500	Human Health, Recreational	13
3-10	Human Health, Recreational	3,200	4,500	Human Health, Recreational	13
>10	> 5 ft to Groundwater	15,000	15,000	--	--

Sample ID	Sample Date	TPHd	TPHfo	cPAHs
BR7-2SB01(1.5)	10/9/2007	46Y	200	0.694

Sample ID	Sample Date	TPHd	TPHfo	cPAHs
BR7-2SB02(1.5)	9/28/2007	<1.2	<5.9	<0.0295
DUP-2-092807	9/28/2007	<1.2	<6	<0.03

Legend:

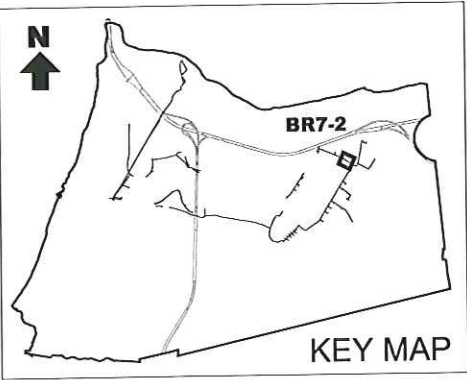
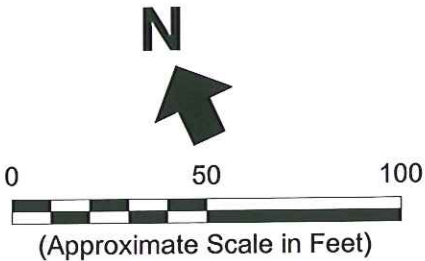
-  Army Confirmation Soil Sampling Location Below Applicable Cleanup Levels (Army, 1997)
-  Overburden Soil Sampling Location (EKI, 2007)
-  FDS Pipeline (Abandoned in Place)
-  FDS Pipeline (Previously Removed by Army from 1996-1999)
-  Historical Excavation Area

Abbreviations:

- cPAHs = carcinogenic Polycyclic Aromatic Hydrocarbons
- FDS = Fuel Distribution System
- TPHd = Total Petroleum Hydrocarbons as Diesel
- TPHfo = Total Petroleum Hydrocarbons as Fuel Oil
- Y = Chromatographic Pattern does not Resemble Standard

Notes:

- All locations are approximate.
- Basemap source: Presidio Trust, 2006 - FDS Pipeline Location digitized from Montgomery Watson, April 1999.
- All concentrations in milligrams per kilogram ("mg/kg").



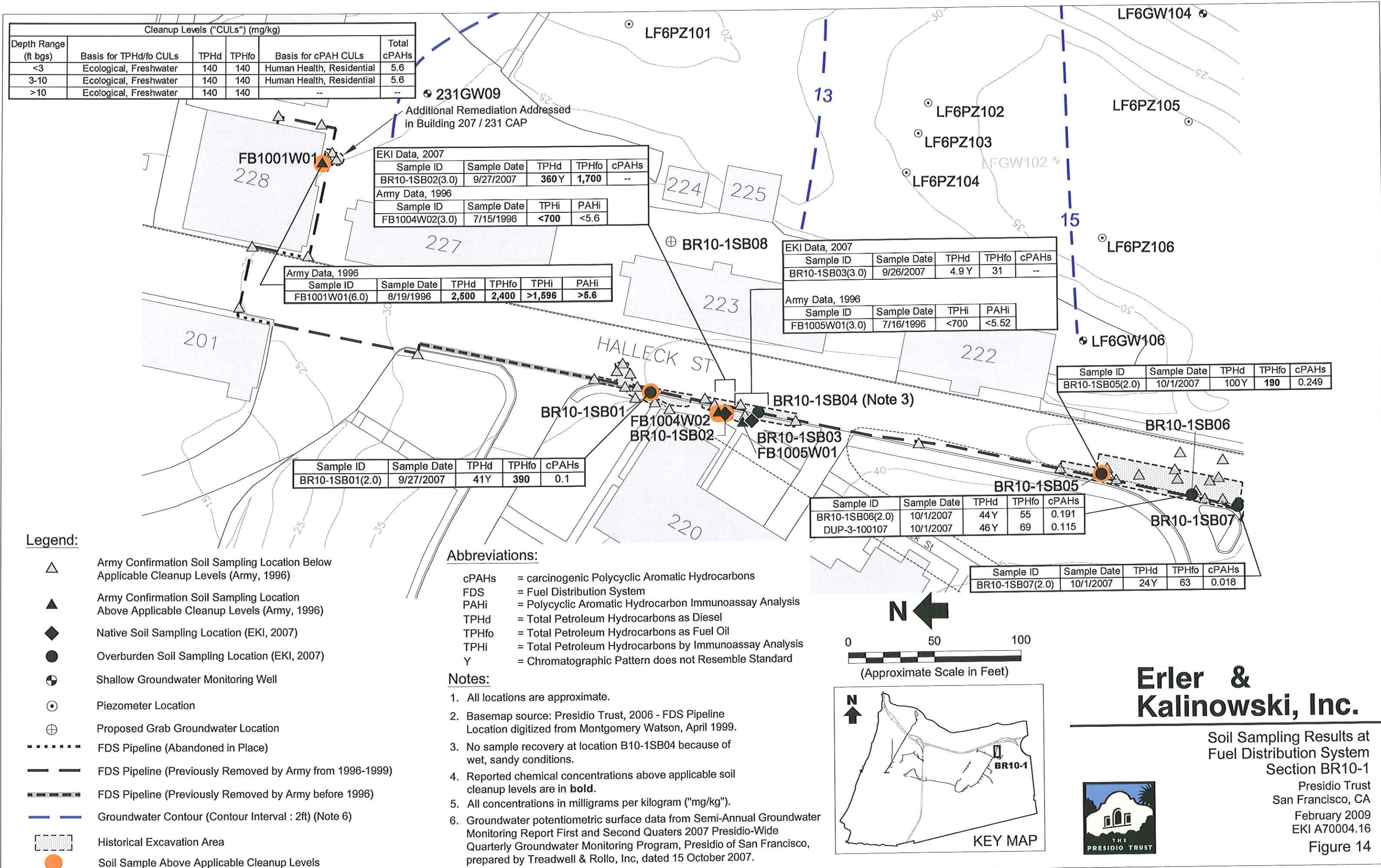
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Soil Sampling Results at
Fuel Distribution System
Section BR7-2



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February 2009
EKI A70004.16

Figure 13



EKI Data, 2007				
Sample ID	Sample Date	TPHd	TPHfo	cPAHs
BR10-2SB01(3.0)	10/9/2007	430 Y	1,200	--
Army Data, 1996				
Sample ID	Sample Date	TPHi	PAHi	
FB1008T03(3.0)	7/11/1996	<700	<5.52	

Legend:

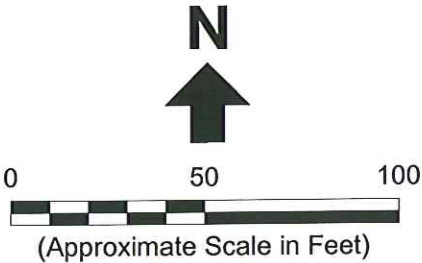
-  Army Confirmation Soil Sampling Location Below Applicable Cleanup Levels (Army, 1996)
-  Army Confirmation Soil Sampling Location Above Applicable Cleanup Levels (Army, 1996)
-  Native Soil Sampling Location (EKI, 2007)
-  Overburden Soil Sampling Location (EKI, 2007)
-  FDS Pipeline (Abandoned in Place)
-  FDS Pipeline (Previously Removed by Army from 1996-1999)
-  Historical Excavation Area
-  Soil Sample Above Applicable Cleanup Levels

Abbreviations:

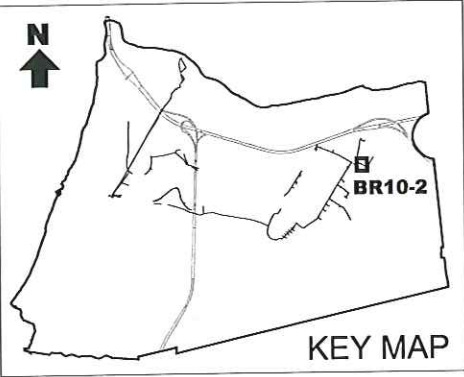
- cPAHs = carcinogenic Polycyclic Aromatic Hydrocarbons
- FDS = Fuel Distribution System
- PAHi = Polycyclic Aromatic Hydrocarbon Immunoassay Analysis
- TPHd = Total Petroleum Hydrocarbons as Diesel
- TPHfo = Total Petroleum Hydrocarbons as Fuel Oil
- TPHi = Total Petroleum Hydrocarbons by Immunoassay Analysis
- Y = Chromatographic Pattern does not Resemble Standard

Notes:

- All locations are approximate.
- Basemap source: Presidio Trust, 2006 - FDS Pipeline Location digitized from Montgomery Watson, April 1999.
- Reported chemical concentrations above applicable soil cleanup levels are in **bold**.
- All concentrations in milligrams per kilogram ("mg/kg").



Cleanup Levels ("CULs") (mg/kg)					
Depth Range (ft bgs)	Basis for TPHd/fo CULs	TPHd	TPHfo	Basis for cPAH CULs	Total cPAHs
<3	Ecological, Freshwater	140	140	Human Health, Residential	5.6
3-10	Ecological, Freshwater	140	140	Human Health, Residential	5.6
>10	Ecological, Freshwater	140	140	--	--



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Soil Sampling Results at Fuel Distribution System Section BR10-2




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Figure 15



Sample ID	Sample Date	TPHd	TPHfo	cPAHs
BR10-3SB02(1.5)	9/26/2007	11Y	61	0.0066

Cleanup Levels ("CULs") (mg/kg)					
Depth Range (ft bgs)	Basis for TPHd/fo CULs	TPHd	TPHfo	Basis for cPAH CULs	Total cPAHs
<3	Ecological, Freshwater	140	140	Human Health, Residential	5.6
3-10	Ecological, Freshwater	140	140	Human Health, Residential	5.6
>10	Ecological, Freshwater	140	140	--	--

Legend:

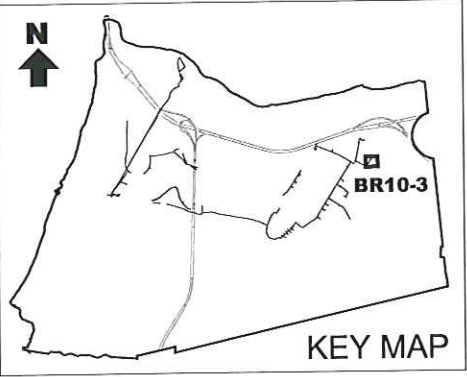
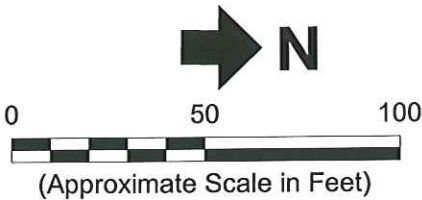
-  Army Confirmation Soil Sampling Location Below Applicable Cleanup Levels (Army, 1996)
-  Overburden Soil Sampling Location (EKI, 2007)
-  Shallow Groundwater Monitoring Well
-  FDS Pipeline (Previously Removed by Army from 1996-1999)
-  FDS Pipeline (Previously Removed by Army before 1996)

Abbreviations:

- cPAHs = carcinogenic Polycyclic Aromatic Hydrocarbons
- FDS = Fuel Distribution System
- LTTD = Low-Temperature Thermal Desorption
- TPHd = Total Petroleum Hydrocarbons as Diesel
- TPHfo = Total Petroleum Hydrocarbons as Fuel Oil
- Y = Chromatographic Pattern does not Resemble Standard

Notes:

- All locations are approximate.
- Basemap source: Presidio Trust, 2006 - FDS Pipeline Location digitized from Montgomery Watson, April 1999.
- FDS trench locations were adjusted based on observations of trench scars in the field and survey coordinates of samples taken along former trench.
- BR10-3SB01 not sampled due to the fact that LTTD soil was not encountered.
- All concentrations in milligrams per kilogram ("mg/kg").



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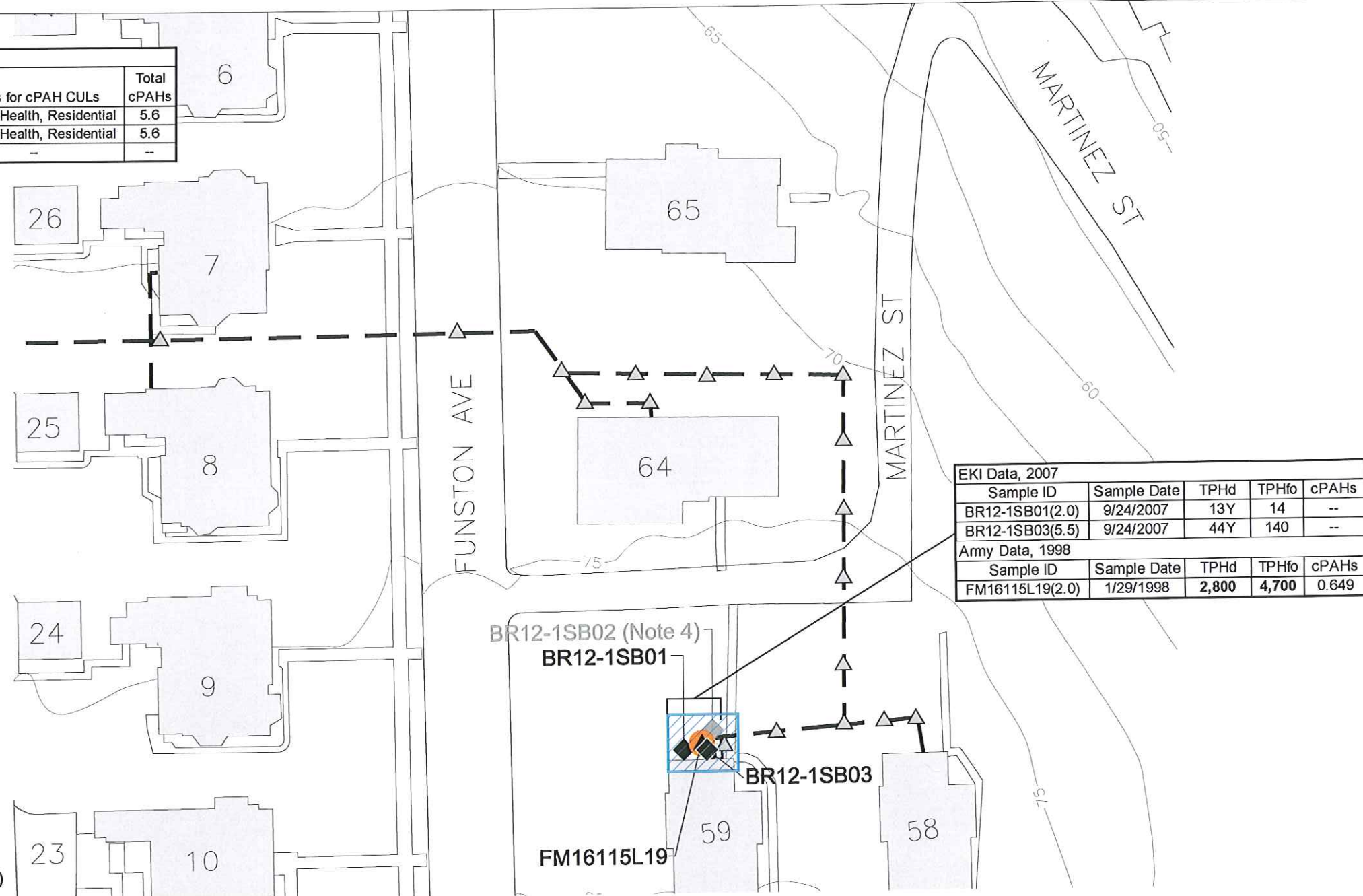
Soil Sampling Results at Fuel Distribution System Section BR10-3

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February 2009
EKI A70004.16

Figure 16



Cleanup Levels ("CULs") (mg/kg)					
Depth Range (ft bgs)	Basis for TPHd/fo CULs	TPHd	TPHfo	Basis for cPAH CULs	Total cPAHs
<3	Human Health, Residential	1,380	1,900	Human Health, Residential	5.6
3-10	Human Health, Residential	1,380	1,900	Human Health, Residential	5.6
>10	> 5 ft to Groundwater	15,000	15,000	--	--



EKI Data, 2007				
Sample ID	Sample Date	TPHd	TPHfo	cPAHs
BR12-1SB01(2.0)	9/24/2007	13Y	14	--
BR12-1SB03(5.5)	9/24/2007	44Y	140	--
Army Data, 1998				
Sample ID	Sample Date	TPHd	TPHfo	cPAHs
FM16115L19(2.0)	1/29/1998	2,800	4,700	0.649

Legend:

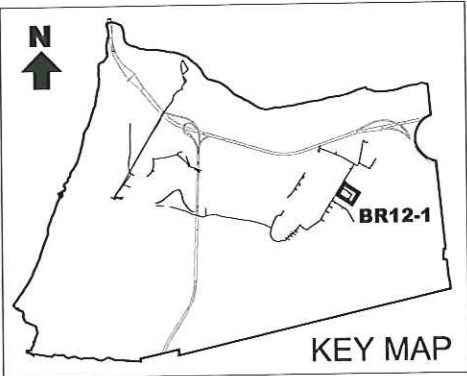
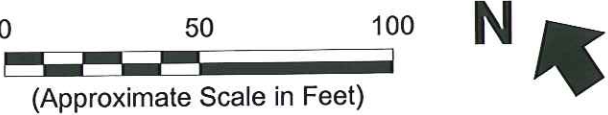
- △ Army Confirmation Soil Sampling Location Below Applicable Cleanup Levels (Army, 1998)
- ▲ Army Confirmation Soil Sampling Location Above Applicable Cleanup Levels (Army, 1998)
- ◆ Native Soil Sampling Location (EKI, 2007)
- FDS Pipeline (Previously Removed by Army from 1996-1999)
- Soil Sample Above Applicable Cleanup Levels
- ▨ Approximate Extent of Land Use Notification Area

Abbreviations:

- cPAHs = carcinogenic Polycyclic Aromatic Hydrocarbons
- FDS = Fuel Distribution System
- TPHd = Total Petroleum Hydrocarbons as Diesel
- TPHfo = Total Petroleum Hydrocarbons as Fuel Oil
- Y = Chromatographic Pattern does not Resemble Standard

Notes:

- 1. All locations are approximate.
- 2. Basemap source: Presidio Trust, 2006 - FDS Pipeline Location digitized from Montgomery Watson, April 1999.
- 3. FDS trench locations were adjusted based on observations of trench scars in the field and survey coordinates of samples taken along former trench.
- 4. BR12-1SB02 not sampled due to large tree at sampling location.
- 5. Reported chemical concentrations above applicable soil cleanup levels are in **bold**.
- 6. All concentrations in milligrams per kilogram ("mg/kg").

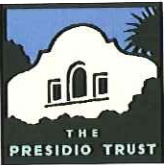


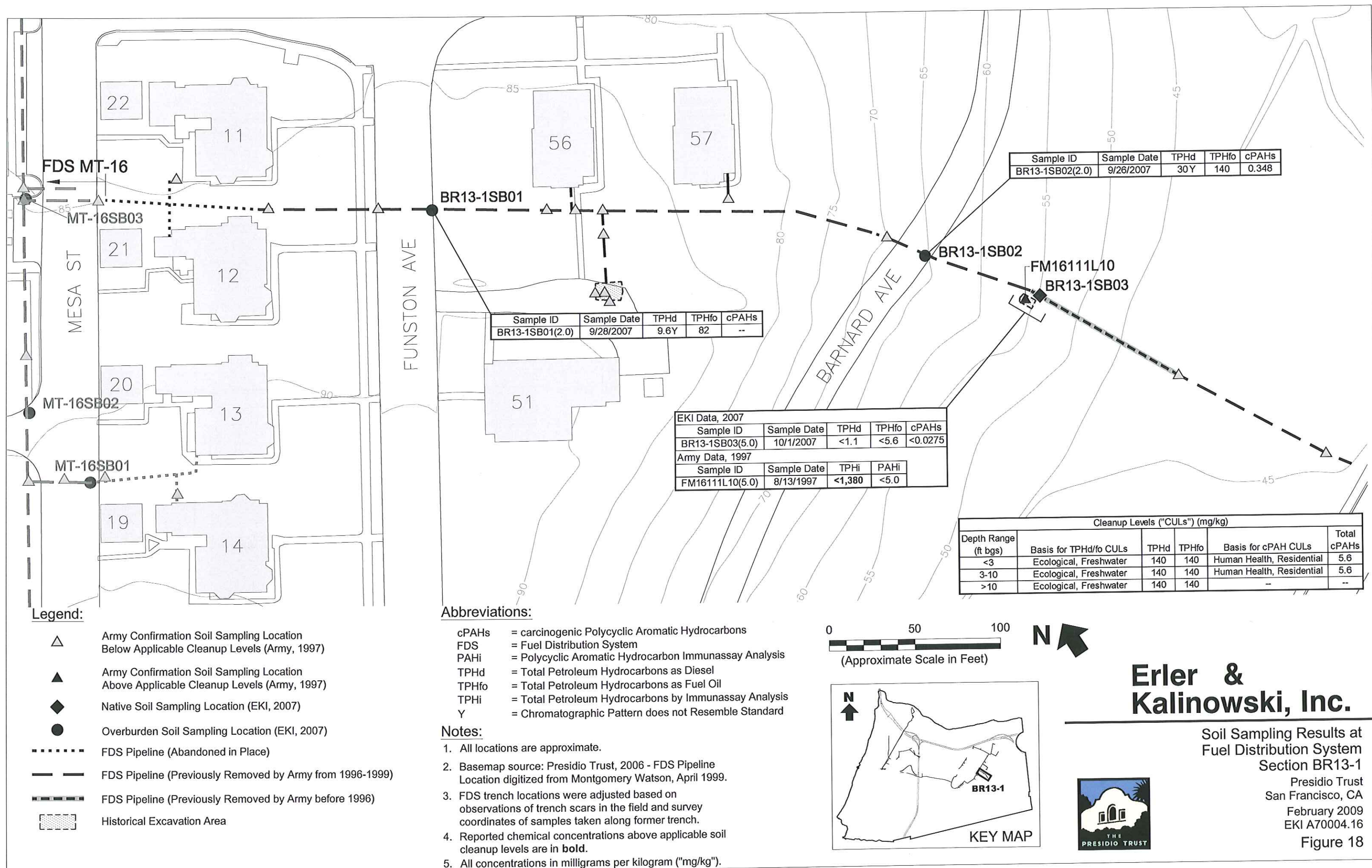
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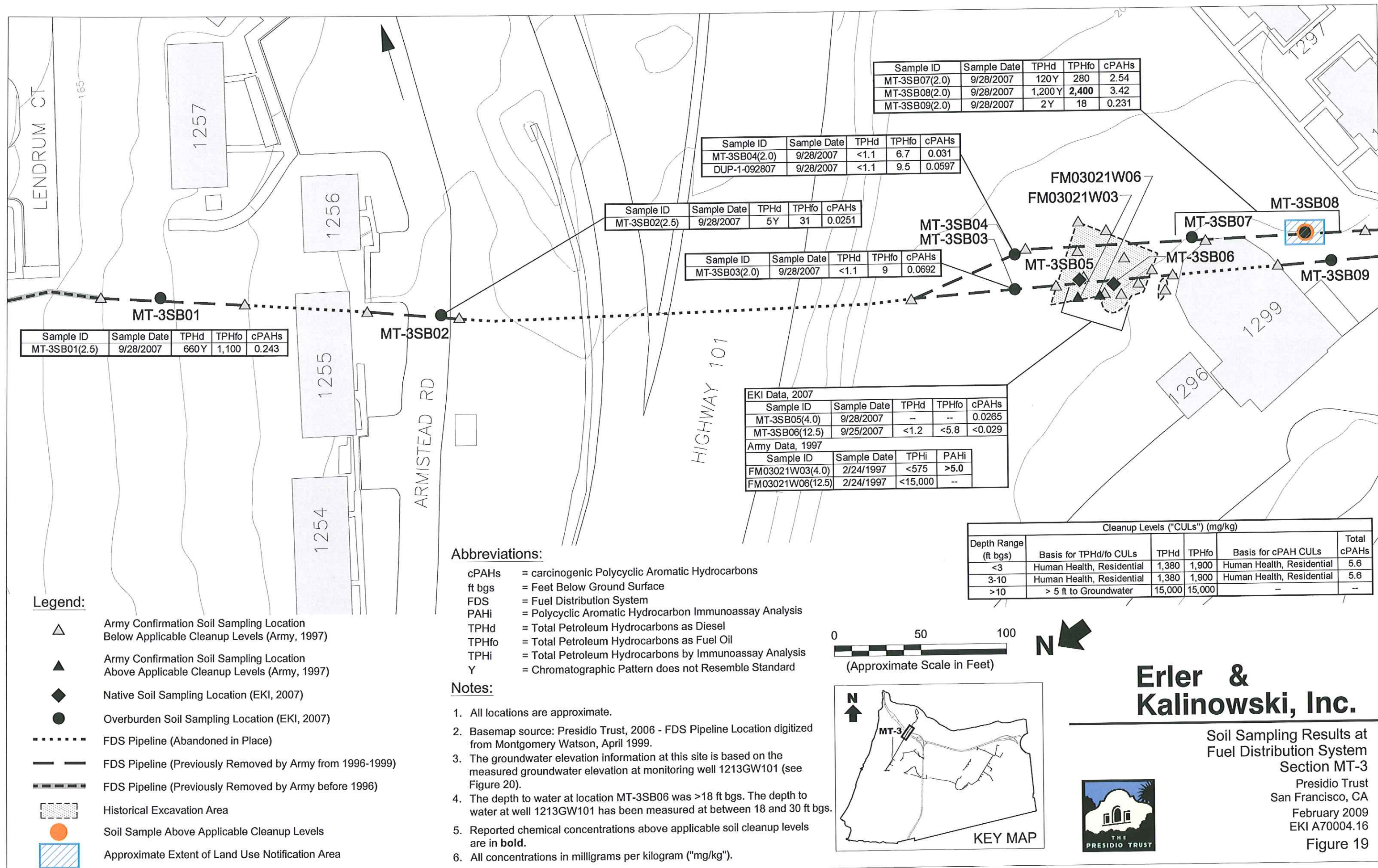
Soil Sampling Results at Fuel Distribution System Section BR12-1

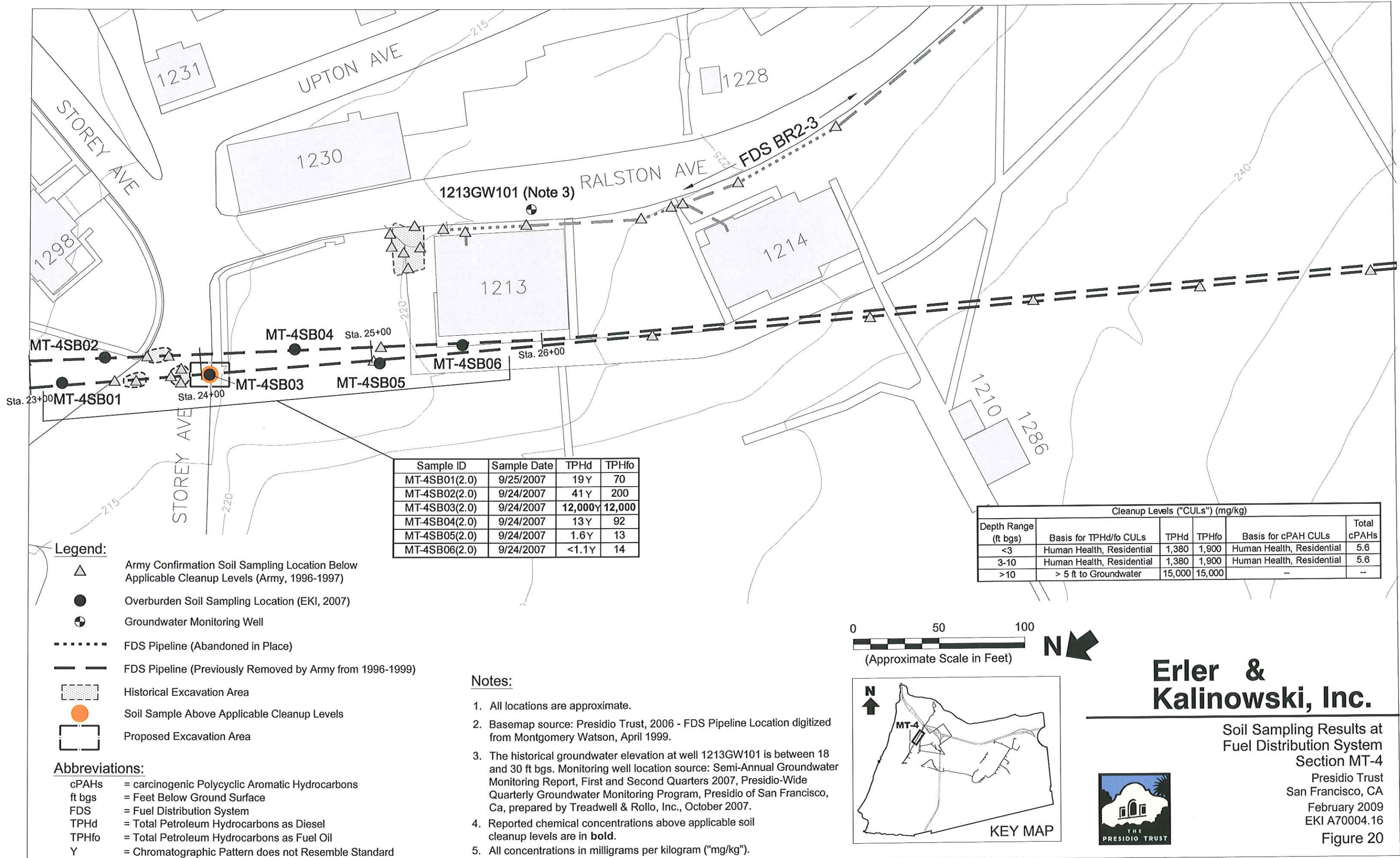
Presidio Trust
San Francisco, CA
February 2009
EKI A70004.16

Figure 17





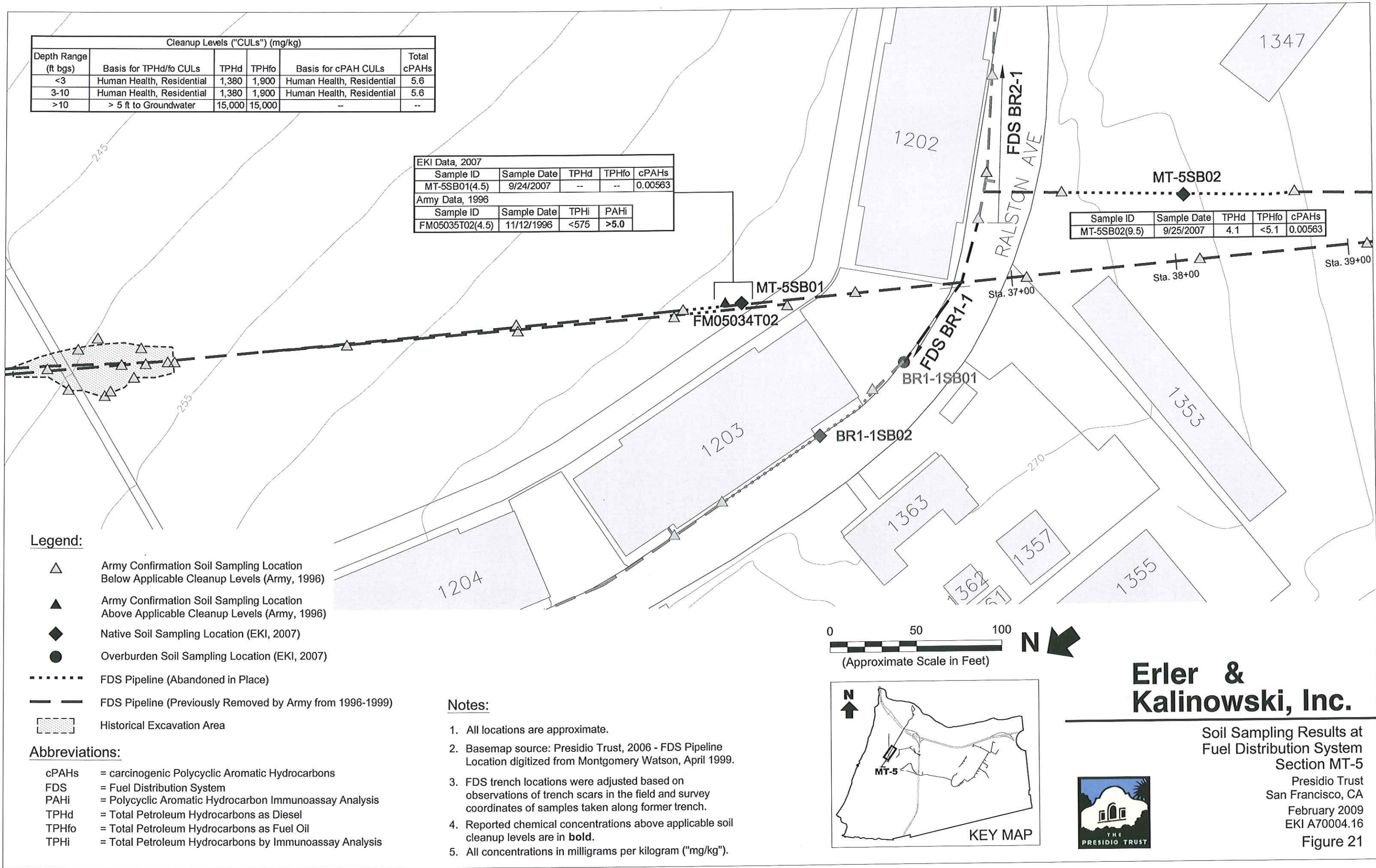




Cleanup Levels ("CULs") (mg/kg)					
Depth Range (ft bgs)	Basis for TPHd/fo CULs	TPHd	TPHfo	Basis for cPAH CULs	Total cPAHs
<3	Human Health, Residential	1,380	1,900	Human Health, Residential	5.6
3-10	Human Health, Residential	1,380	1,900	Human Health, Residential	5.6
>10	> 5 ft to Groundwater	15,000	15,000	—	—

EKI Data, 2007				
Sample ID	Sample Date	TPHd	TPHfo	cPAHs
MT-5SB01(4.5)	9/24/2007	--	--	0.00563
Army Data, 1996				
Sample ID	Sample Date	TPHi	PAHi	
FM05035T02(4.5)	11/12/1996	<575	>5.0	

Sample ID	Sample Date	TPHd	TPHfo	cPAHs
MT-5SB02(9.5)	9/25/2007	4.1	<5.1	0.00563



Legend:

- △ Army Confirmation Soil Sampling Location Below Applicable Cleanup Levels (Army, 1996)
- ▲ Army Confirmation Soil Sampling Location Above Applicable Cleanup Levels (Army, 1996)
- ◆ Native Soil Sampling Location (EKI, 2007)
- Overburden Soil Sampling Location (EKI, 2007)
- FDS Pipeline (Abandoned in Place)
- FDS Pipeline (Previously Removed by Army from 1996-1999)
- ▨ Historical Excavation Area


Abbreviations:

- cPAHs = carcinogenic Polycyclic Aromatic Hydrocarbons
- FDS = Fuel Distribution System
- PAHi = Polycyclic Aromatic Hydrocarbon Immunoassay Analysis
- TPHd = Total Petroleum Hydrocarbons as Diesel
- TPHfo = Total Petroleum Hydrocarbons as Fuel Oil
- TPHi = Total Petroleum Hydrocarbons by Immunoassay Analysis

Notes:

- All locations are approximate.
- Basemap source: Presidio Trust, 2006 - FDS Pipeline Location digitized from Montgomery Watson, April 1999.
- FDS trench locations were adjusted based on observations of trench scars in the field and survey coordinates of samples taken along former trench.
- Reported chemical concentrations above applicable soil cleanup levels are in **bold**.
- All concentrations in milligrams per kilogram ("mg/kg").

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Soil Sampling Results at Fuel Distribution System Section MT-5

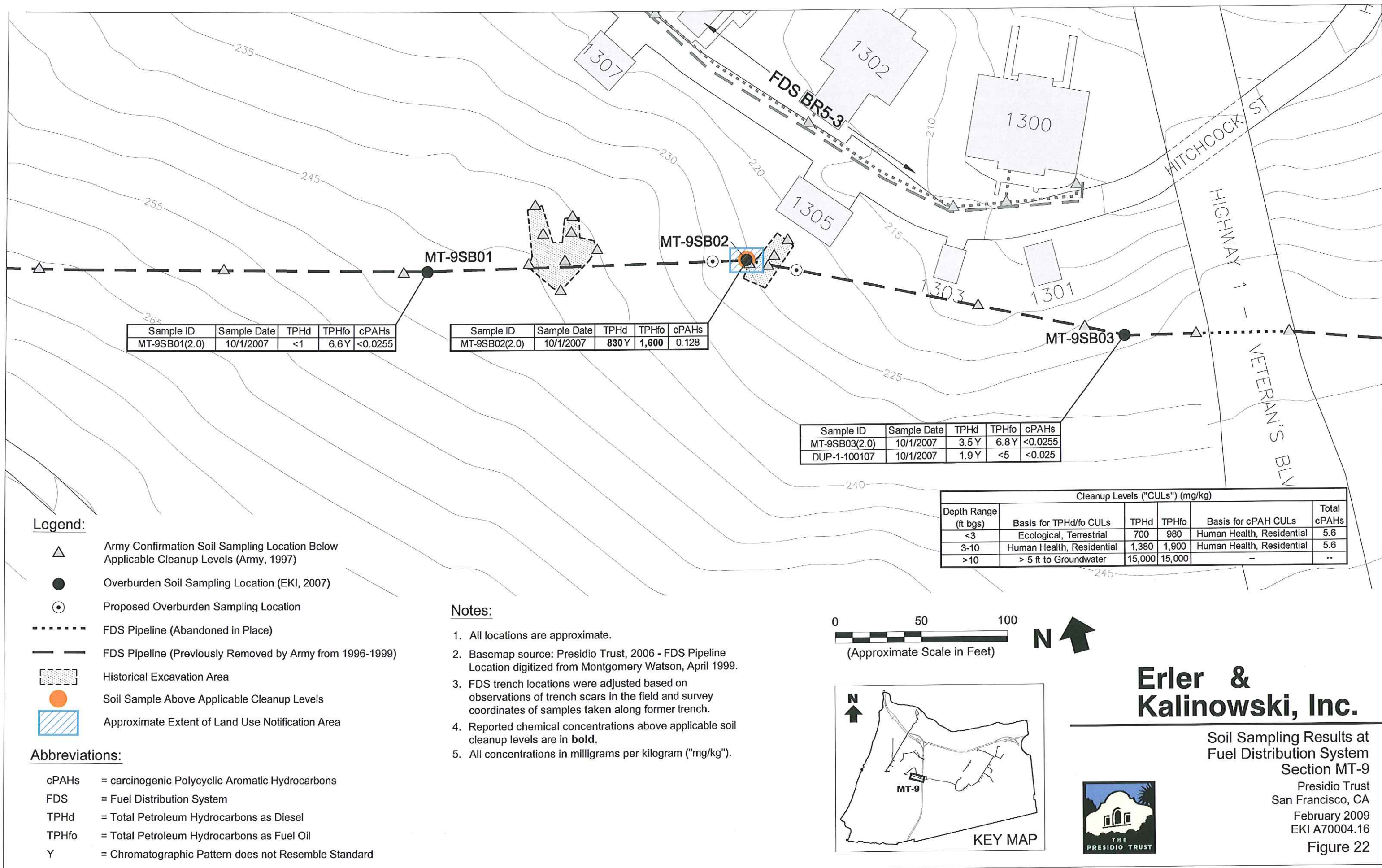
Presidio Trust

San Francisco, CA

February 2009

EKI A70004.16

Figure 21



EKI Data, 2007				
Sample ID	Sample Date	TPHd	TPHfo	cPAHs
MT-10SB01(0.5)	10/5/2007	70 Y	130	0.00336
Army Data, 1997				
Sample ID	Sample Date	TPHi	PAHi	
FM10068T01(0.5)	5/27/1997	>575	>5.0	

Cleanup Levels ("CULs") (mg/kg)					
Depth Range (ft bgs)	Basis for TPHd/fo CULs	TPHd	TPHfo	Basis for cPAH CULs	Total cPAHs
<3	Ecological, Terrestrial	700	980	Human Health, Recreational	13
3-10	Human Health, Recreational	3,200	4,500	Human Health, Recreational	13
>10	> 5 ft to Groundwater	15,000	15,000	--	--

Legend:

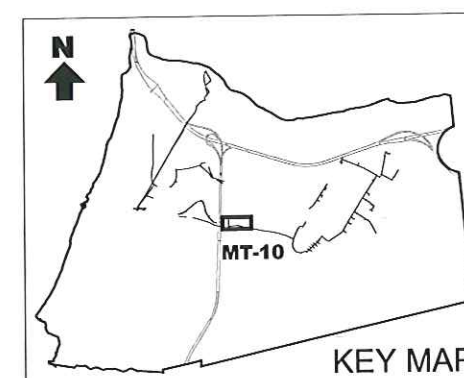
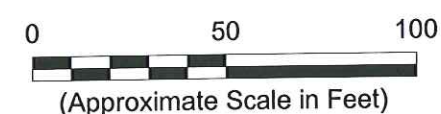
-  Army Confirmation Soil Sampling Location Below Applicable Cleanup Levels (Army, 1997)
-  Army Confirmation Soil Sampling Location Above Applicable Cleanup Levels (Army, 1997)
-  Native Soil Sampling Location (EKI, 2007)
-  FDS Pipeline (Previously Removed by Army from 1996-1999)
-  Historical Excavation Area

Abbreviations:

- cPAHs = carcinogenic Polycyclic Aromatic Hydrocarbons
- FDS = Fuel Distribution System
- PAHi = Polycyclic Aromatic Hydrocarbon Immunoassay Analysis
- TPHd = Total Petroleum Hydrocarbons as Diesel
- TPHfo = Total Petroleum Hydrocarbons as Fuel Oil
- TPHi = Total Petroleum Hydrocarbons by Immunoassay Analysis
- Y = Chromatographic Pattern does not Resemble Standard

Notes:

- All locations are approximate.
- Basemap source: Presidio Trust, 2006 - FDS Pipeline Location digitized from Montgomery Watson, April 1999.
- FDS trench locations were adjusted based on coordinates of samples taken along former trench.
- Reported chemical concentrations above applicable soil cleanup levels are in **bold**.
- All concentrations in milligrams per kilogram ("mg/kg").



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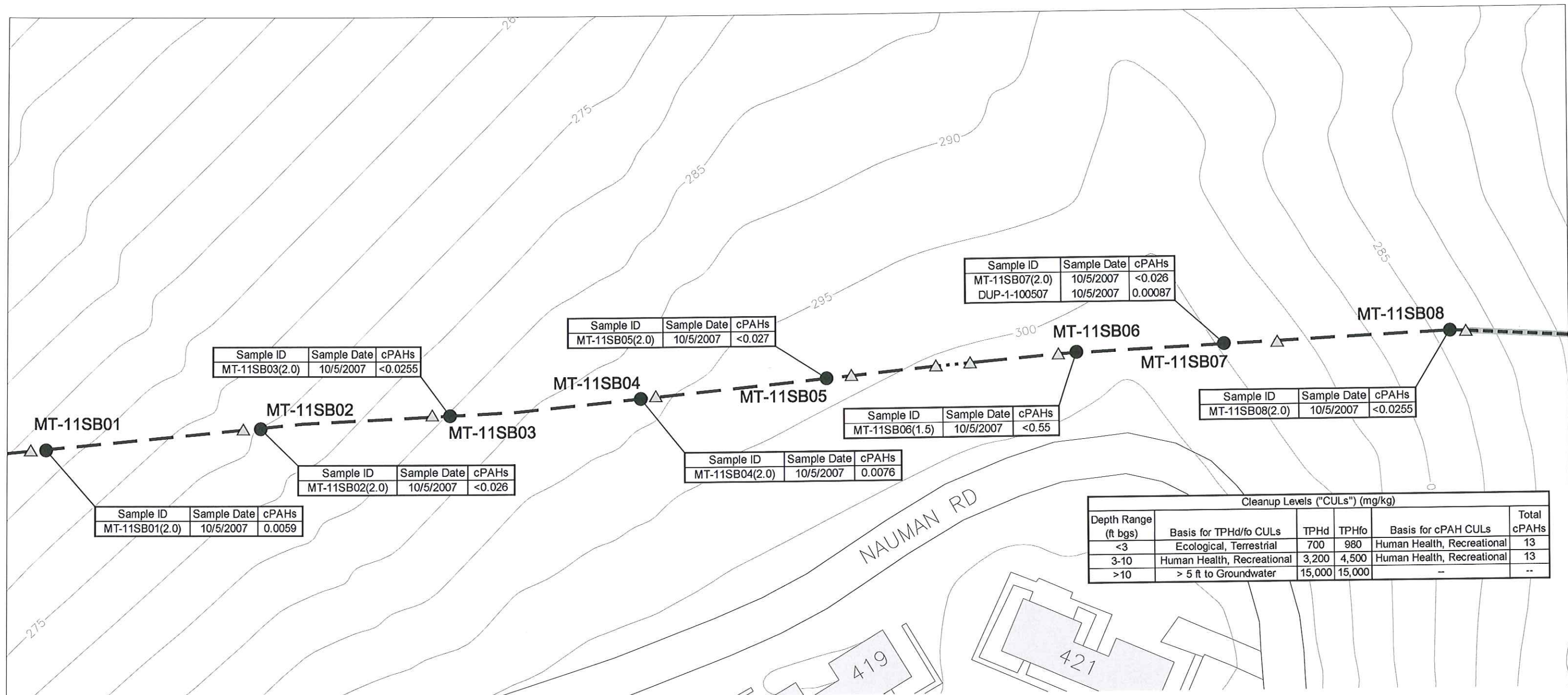
Soil Sampling Results at Fuel Distribution System Section MT-10

Presidio Trust
San Francisco, CA

February 2009
EKI A70004.16

Figure 23





Cleanup Levels ("CULs") (mg/kg)					
Depth Range (ft bgs)	Basis for TPHd/fo CULs	TPHd	TPHfo	Basis for cPAH CULs	Total cPAHs
<3	Ecological, Terrestrial	700	980	Human Health, Recreational	13
3-10	Human Health, Recreational	3,200	4,500	Human Health, Recreational	13
>10	> 5 ft to Groundwater	15,000	15,000	—	--

Legend:

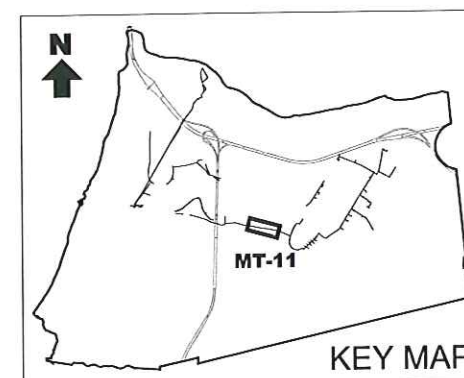
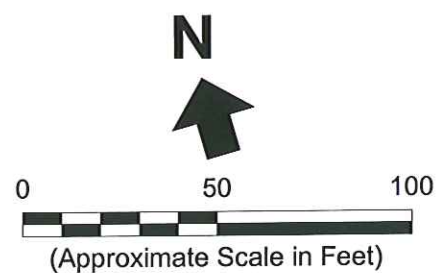
- Army Confirmation Soil Sampling Location Below Applicable Cleanup Levels (Army, 1997)
- Overburden Soil Sampling Location (EKI, 2007)
- FDS Pipeline (Abandoned in Place)
- FDS Pipeline (Previously Removed by Army from 1996-1999)
- FDS Pipeline (Previously Removed by Army before 1996)

Abbreviations:

- cPAHs = carcinogenic Polycyclic Aromatic Hydrocarbons
- FDS = Fuel Distribution System
- TPHd = Total Petroleum Hydrocarbons as Diesel
- TPHfo = Total Petroleum Hydrocarbons as Fuel Oil

Notes:

- All locations are approximate.
- Basemap source: Presidio Trust, 2006 - FDS Pipeline Location digitized from Montgomery Watson, April 1999.
- All concentrations in milligrams per kilogram ("mg/kg").



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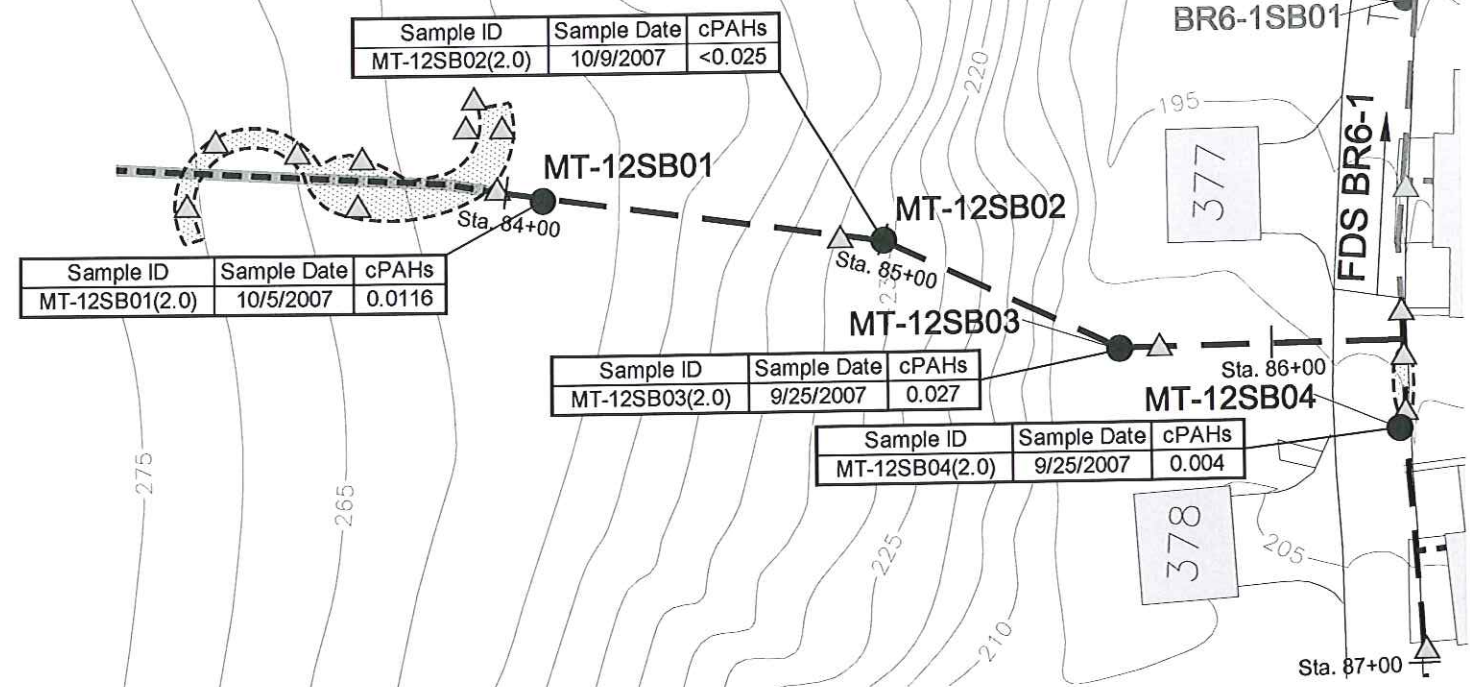
Soil Sampling Results at Fuel Distribution System Section MT-11

Presidio Trust
San Francisco, CA
February 2009
EKI A70004.16

Figure 24



Cleanup Levels ("CULs") (mg/kg)					
Depth Range (ft bgs)	Basis for TPHd/fo CULs	TPHd	TPHfo	Basis for cPAH CULs	Total cPAHs
<3	Ecological, Terrestrial	700	980	Human Health, Residential	5.6
3-10	Human Health, Residential	1,380	1,900	Human Health, Residential	5.6
>10	> 5 ft to Groundwater	15,000	15,000	--	--

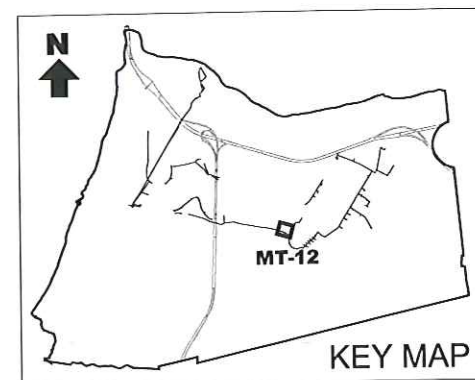
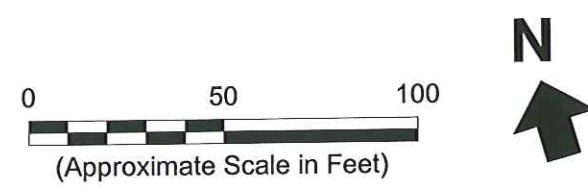


- Legend:**
- △ Army Confirmation Soil Sampling Location Below Applicable Cleanup Levels (Army, 1996-1997)
 - Overburden Soil Sampling Location (EKI, 2007)
 - FDS Pipeline (Previously Removed by Army from 1996-1999)
 - FDS Pipeline (Previously Removed by Army before 1996)
 - ▨ Historical Excavation Area

Abbreviations:

cPAHs = carcinogenic Polycyclic Aromatic Hydrocarbons
 FDS = Fuel Distribution System
 TPHd = Total Petroleum Hydrocarbons as Diesel
 TPHfo = Total Petroleum Hydrocarbons as Fuel Oil

- Notes:**
- All locations are approximate.
 - Basemap source: Presidio Trust, 2006 - FDS Pipeline Location digitized from Montgomery Watson, April 1999.
 - FDS trench locations were adjusted based on observations of trench scars in the field and survey coordinates of samples taken along former trench.
 - All concentrations in milligrams per kilogram ("mg/kg").

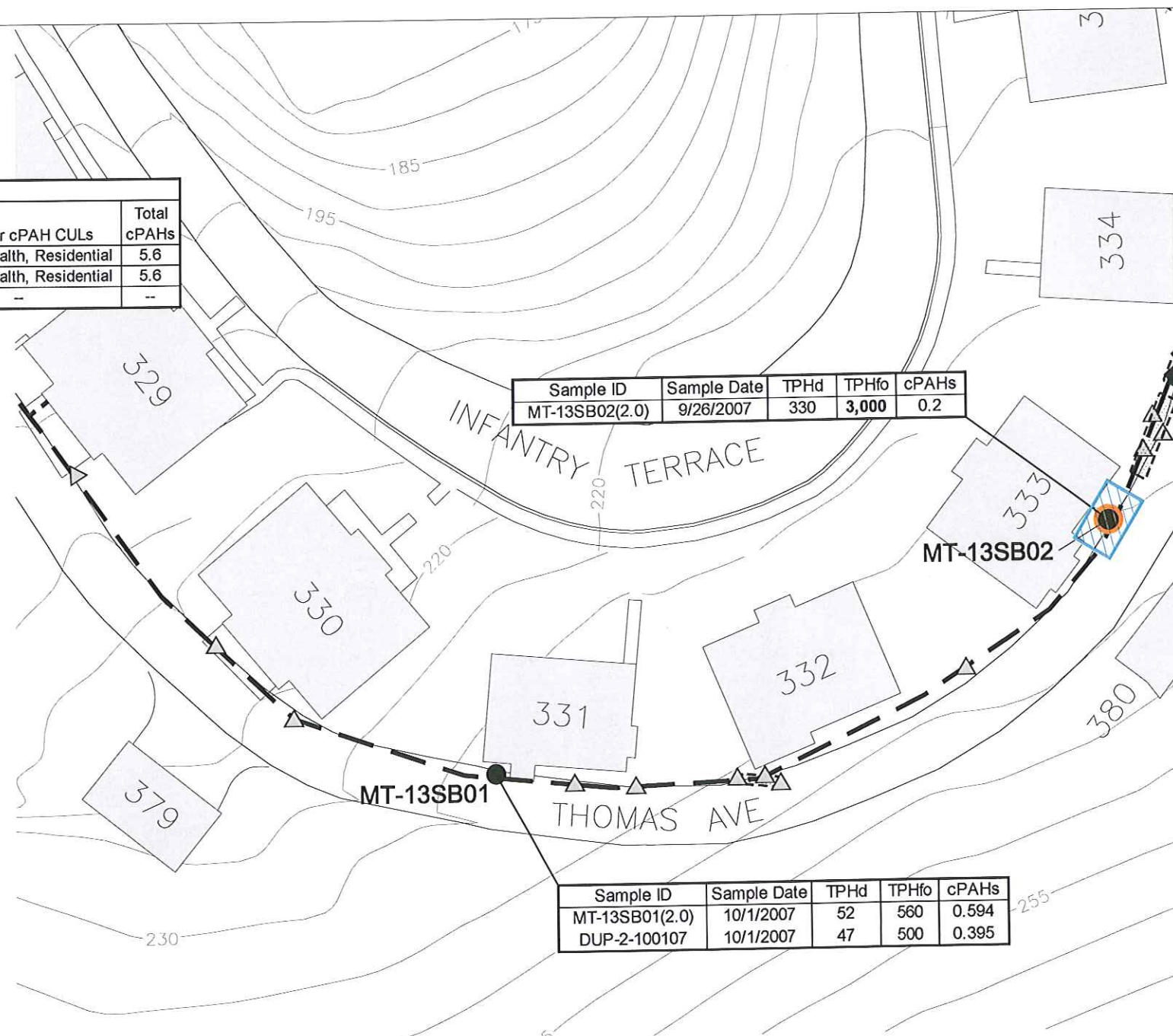


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Soil Sampling Results at
 Fuel Distribution System
 Section MT-12
 Presidio Trust
 San Francisco, CA
 February 2009
 EKI A70004.16
 Figure 25



Cleanup Levels ("CULs") (mg/kg)					
Depth Range (ft bgs)	Basis for TPHd/fo CULs	TPHd	TPHfo	Basis for cPAH CULs	Total cPAHs
<3	Human Health, Residential	1,380	1,900	Human Health, Residential	5.6
3-10	Human Health, Residential	1,380	1,900	Human Health, Residential	5.6
>10	> 5 ft to Groundwater	15,000	15,000	--	--



Legend:

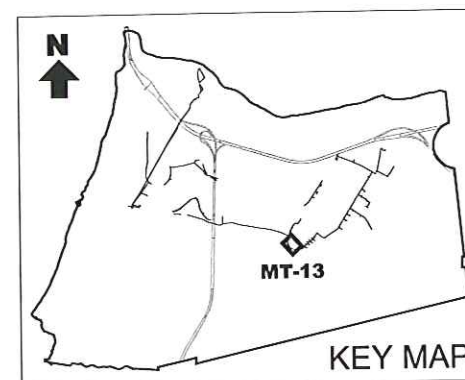
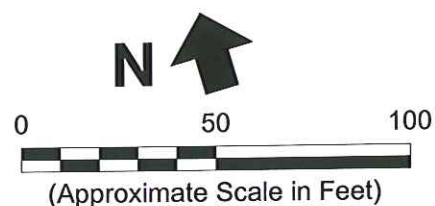
-  Army Confirmation Soil Sampling Location Below Applicable Cleanup Levels (Army, 1996)
-  Overburden Soil Sampling Location (EKL, 2007)
-  FDS Pipeline (Previously Removed by Army from 1996-1999)
-  Historical Excavation Area
-  Soil Sample Above Applicable Cleanup Levels
-  Approximate Extent of Land Use Notification Area

Abbreviations:

- cPAHs = carcinogenic Polycyclic Aromatic Hydrocarbons
- FDS = Fuel Distribution System
- TPHd = Total Petroleum Hydrocarbons as Diesel
- TPHfo = Total Petroleum Hydrocarbons as Fuel Oil

Notes:

1. All locations are approximate.
2. Basemap source: Presidio Trust, 2006 - FDS Pipeline Location digitized from Montgomery Watson, April 1999.
4. Reported chemical concentrations above applicable soil cleanup levels are in **bold**.
5. All concentrations in milligrams per kilogram ("mg/kg").



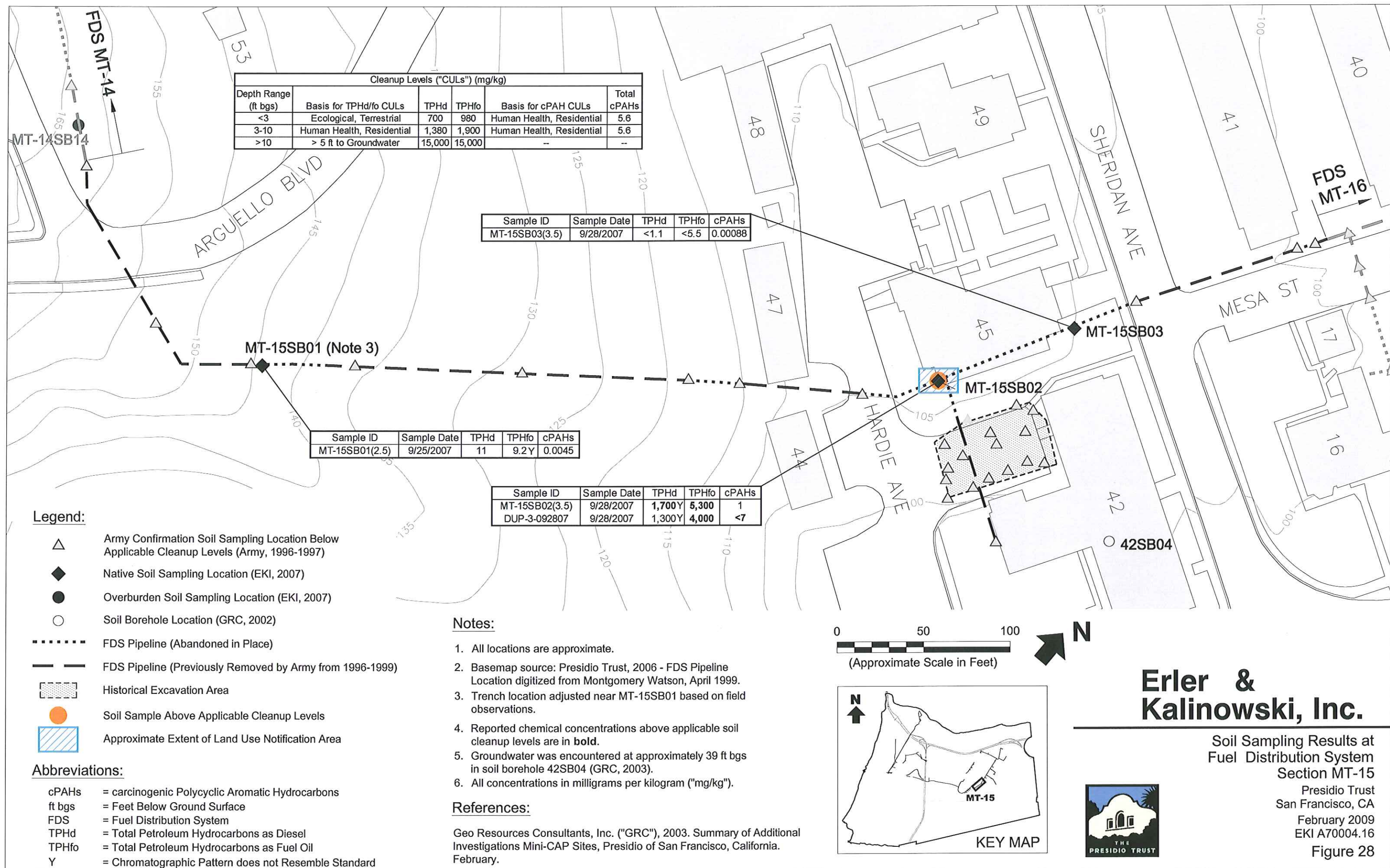
Erler & Kalinowski, Inc.

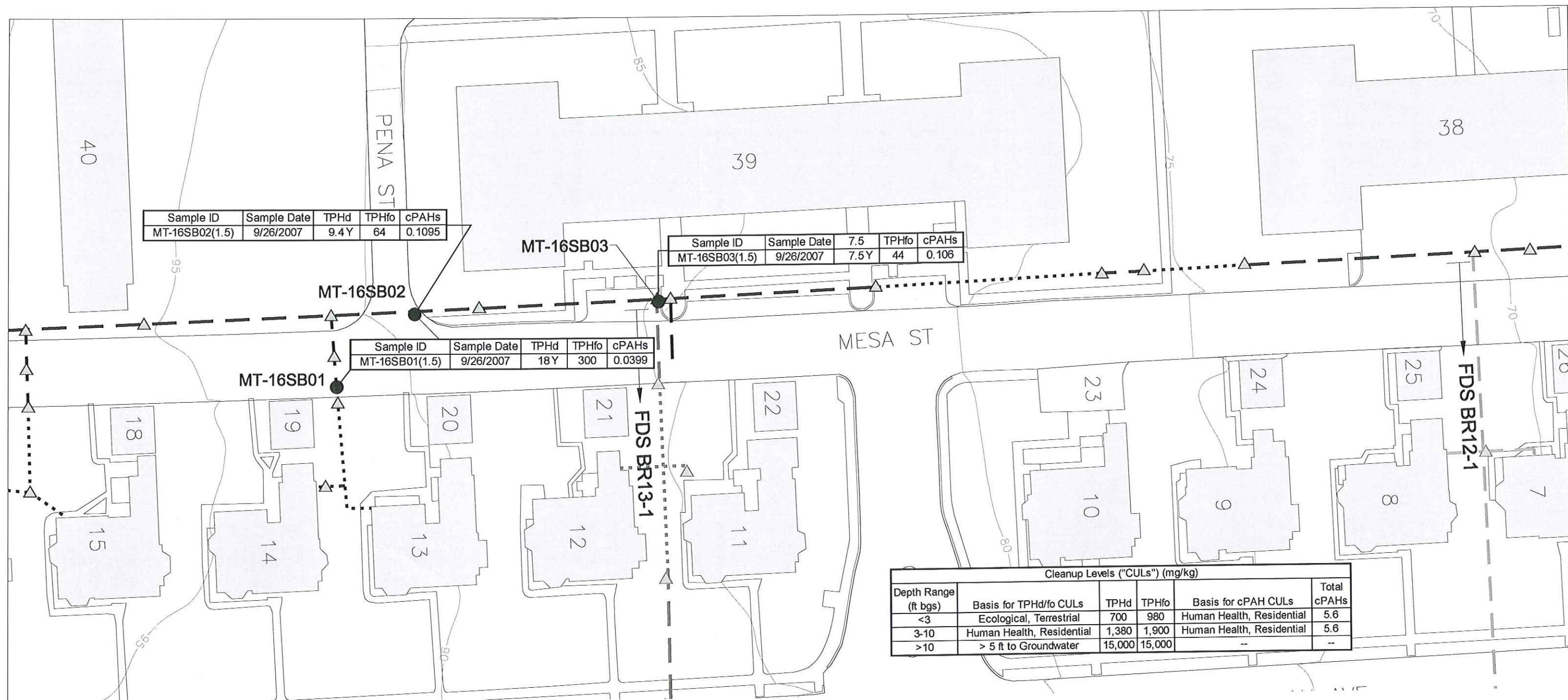
Soil Sampling Results at Fuel Distribution System Section MT-13

Presidio Trust
San Francisco, CA
February 2009
EKI A70004.16

Figure 26







Cleanup Levels ("CULs") (mg/kg)					
Depth Range (ft bgs)	Basis for TPHd/fo CULs	TPHd	TPHfo	Basis for cPAH CULs	Total cPAHs
<3	Ecological, Terrestrial	700	980	Human Health, Residential	5.6
3-10	Human Health, Residential	1,380	1,900	Human Health, Residential	5.6
>10	> 5 ft to Groundwater	15,000	15,000	--	--

Legend:

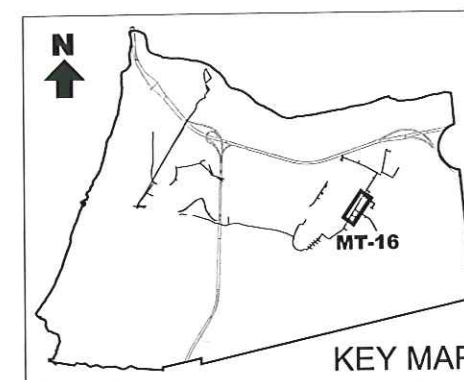
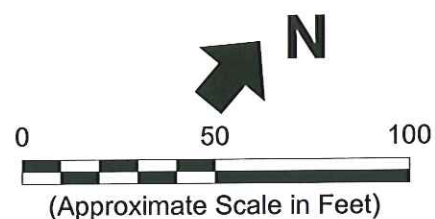
- Army Confirmation Soil Sampling Location Below Applicable Cleanup Levels
- Overburden Soil Sampling Location (EKI,2007)
- FDS Pipeline (Abandoned in Place)
- FDS Pipeline (Previously Removed by Army from 1996-1999)

Abbreviations:

- cPAHs = carcinogenic Polycyclic Aromatic Hydrocarbons
- FDS = Fuel Distribution System
- TPHd = Total Petroleum Hydrocarbons as Diesel
- TPHfo = Total Petroleum Hydrocarbons as Fuel Oil
- Y = Chromatographic Pattern does not Resemble Standard

Notes:

1. All locations are approximate.
2. Basemap source: Presidio Trust, 2006 - FDS Pipeline Location digitized from Montgomery Watson, April 1999.
3. FDS trench locations were adjusted based on observations of trench scars in the field and survey coordinates of samples taken along former trench.
4. All concentrations in milligrams per kilogram ("mg/kg").

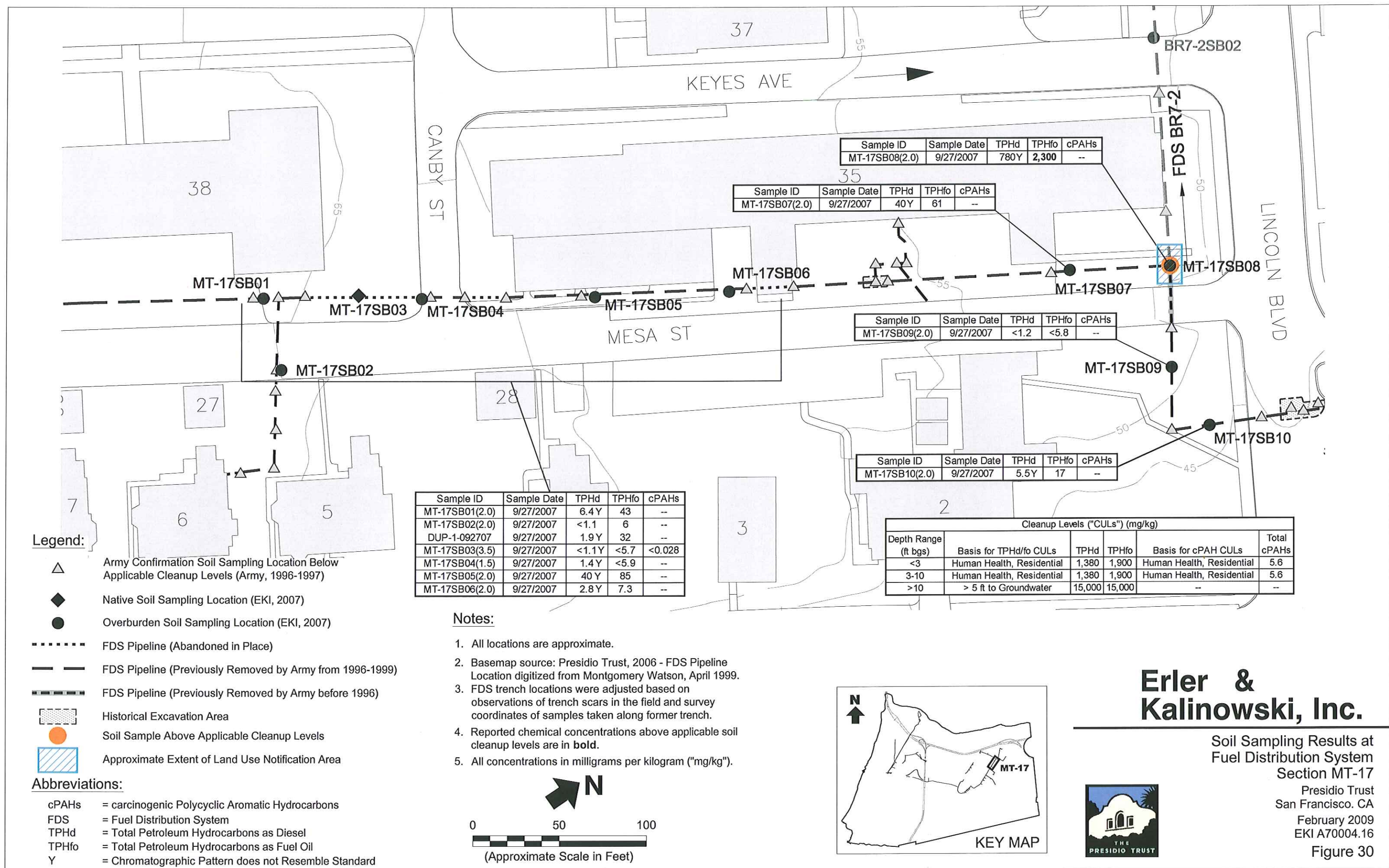


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Soil Sampling Results at Fuel Distribution System Section MT-16

Presidio Trust
San Francisco, CA
February 2009
EKI A70004.16
Figure 29





Appendix A

FDS Data Gap Analysis Decision Logic and FDS FSP Tables

Appendix A

FDS CLOSURE DATA GAP EVALUATION DECISION LOGIC

Sampling recommendations determined using the decision logic contained herein are based on information in the fuel distribution system (“FDS”) Section figures in the FDS removal report prepared by IT on behalf of the U.S. Army Corps of Engineers (“Army”) (IT,1999) (“the IT Report”) and on compiled information located in Table 2 of this FDS FSP.

Sequential Decision Steps

- A) Army recommendation review.
- B) Identify applicable cleanup levels.
- C) Review additional remediation data.
- D) Trench and low temperature thermal desorption treated soil (“LTTD”) confirmation soil sample (“CSS”) > cleanup level (“CL”) review.
- E) Stockpile soil sample review.
- F) Abandoned pipeline sampling review.
- G) Overexcavation sampling review.
- H) Trench sampling review.

A.) Review Army recommendation from the IT Report and identify any pre-existing areas of concern. Go to B.

B.) Identify applicable cleanup levels for the section. Go to C.

C.) Review available data, including additional data that may have been collected by the Trust. Determine if FDS Section is included in an existing Trust remedial site (i.e., Corrective Action Plan (“CAP”), Mini-Cap) or being addressed separately by the Trust. Exclude data gaps that are filled by additional fieldwork conducted by Trust. Go to D.

D.) Identify any areas along the FDS pipeline where soil remaining in place may be above applicable cleanup levels (“> CL”).

1.) Determine if confirmation soil samples (“CSS”) in Trench and LTTD-treated soil used as backfill are potentially > CL.

- i.) CCS > CL because one or more of the following is true:
 - CSS potentially with total petroleum hydrocarbons (“TPH”) > CL;
 - CSS potentially with polycyclic aromatic hydrocarbons (“PAHs”) > CL; or

- CSS representative of LTTD-treated soil used as backfill potentially > CL.
- Go to 2.

ii.) CSS < CL for all trench and LTTD CSS. Go to E.

2.) Based on reported analytical data, determine if soil is likely affected.

i.) *Soil is likely not affected.* The soil sample is potentially above cleanup level, but likely to be below cleanup levels because no visibly stained soil was encountered in the vicinity of the soil sample (i.e., no overexcavations conducted) and one of the following is true:

- CSS is below an elevated detection limit, where the CSS is likely to be below cleanup levels (e.g., TPH < 300 mg/kg in saltwater ecological protection zone).
- CSS exceeds a detection limit which is below the cleanup levels (e.g., TPH > 62.5 mg/kg in terrestrial ecological protection zone)

→ **Collect CSS near location where soil was potentially > CL.** Go to E.

ii.) *Soil is likely affected.* The soil sample is likely to be above cleanup levels, often with the presence of visibly stained soil confirmed by the Army and often with known obstacles to cleanup. These include FDS sections where:

- soil sample results are above cleanup levels as confirmed by laboratory data (e.g., TPHd = 2,000 mg/kg with a applicable cleanup level of 1,380 mg/kg)
- soil sample results are likely above cleanup levels based on immunoassay results (total TPH > 1,380 mg/kg with an applicable cleanup level of 1,380 mg/kg).

→ Go to 3.

3.) Evaluate accessibility of affected soil.

i.) Affected soil is accessible.

→ **Collect SS in order to address current concentrations of COCs. Based on site-specific conditions, the lateral extent may be investigated now or in the future. Based on soil sampling program results, further work may be recommended.** Go to 4.

- ii.) Affected soil is not accessible because soil is
- located beneath foundation of building or structure (e.g. loading ramp);
 - beneath historic tree or sensitive landscaping area;
 - beneath any other sensitive structure (other piping); or
 - at depth where excavation would be cost prohibitive.
- **Collect SS from Army's former SS locations where high chemical of concern ("COC") concentrations were reported in order to determine current concentration of COCs present in soil. Also collect SS to define lateral and vertical extent of affected soil to the extent possible based on accessibility. Based on soil sampling program results, further work may be recommended. Go to 4.**

4.) Assess whether there are potential groundwater impacts at the Site

- i.) COCs at depth are reported at concentrations that may potentially affect groundwater.
- **Conduct vertical chemical profile to assess the vertical extent of chemicals of concern in soil. Collect SS at original depth where COCs were found to be > CL, collect SS beneath stained soil (or 5 feet below original sample, whichever is greater) and collect a third SS 5 feet below second sample. Additionally, if groundwater is encountered during sampling activities, a groundwater sample will also be collected. Go to E.**
- ii.) COCs are not, or are not likely, to be encountered at concentrations greater than cleanup levels at depths within 5 feet of groundwater. This conclusion is based on professional judgment and determined on a case-by-case basis.
- **No samples warranted to assess this criterion. Go to E.**

E.) Stockpiled Soil

1.) Determine disposal and reuse of stockpiled soil.

- i.) Stockpiled soil was reused as backfill → Go to 2.
- ii.) Stockpiled soil was disposed offsite → **No samples warranted to assess this criterion. Go to F.**

2.) Assess whether CSS collected from stockpiled soil were > CL.¹

- i.) Yes → Go to 3i.
- ii.) No → Go to 3ii.
- iii.) No stockpile samples collected → Go to 3iii.

3.) Assess whether sampling frequency of stockpiled soil is adequate, based on IT Report.

- i.) < 50 cy/sample → **Collect CSS at stations where soil > CL was used as backfill in order to assess if remediation is needed. If no area is specified, collect overburden CSS every 100 linear feet (“lf”) of trench backfilled with stockpiled soil.² [NOTE: Collect discrete soil samples, not 4-point composites.] Go to F.**

> 50 cy/sample → Collect overburden CSS every 100 lf along trench length where stockpiled soil was used as backfill in order to assess if remediation is needed.² [NOTE: Collect discrete soil samples, not 4-point composites.] Go to F.

- ii.) < 50 cy/sample → **No samples warranted to assess this criterion. Go to F.**
> 50 cy/sample or no samples collected → Go to 4.
- iii.) Stockpile < 50 cy → **No samples warranted to assess this criterion. Go to F.**
Stockpile > 50 cy → Go to 4.

4.) Consider sampling frequency of CSS from trench.

- i.) Removed pipeline sampling < 100 lf/sample and no CSS > CL → Go to 5i.

¹ The Army's FDS program stipulated that stockpiled soil to backfill trenches was to be reused in accordance with discharge criteria of TPH <100 mg/kg and total PAHs <5.6 mg/kg in all FDS sections located outside of the Crissy Field area. FDS sections within the Crissy Field area were to meet a discharge criteria of TPH <100 mg/kg, total PAHs < 4.0 mg/kg, and concentrations of benzene, toluene, ethylbenzene and xylenes could not be above reporting limits. Since stockpiled soil is already in place, the Trust chose to compare stockpiled sample concentrations to applicable cleanup levels rather than the Army's discharge criteria.

² One sample of overburden every 100 lf is estimated to be approximately 1 soil sample every 22 cubic yards if the typical FDS excavation trench is assumed to be 2 feet deep by 3 feet wide.

- ii.) Removed pipeline sampling > 100 lf/sample or <100 lf/sample with CSS > CL → Go to 5ii.
- 5.) Consider where visibly stained soil was encountered during excavation activities (i.e., overexcavations were conducted along FDS Section).
- i.) Overexcavations conducted in area of trench backfilled with stockpiled soil. → **Collect overburden CSS (within backfill) in order to increase “stockpile” sampling frequency to 50 cy/sample. [NOTE: Collect discrete soil samples, not 4-point composites.]** Go to F.
No overexcavations conducted area of trench backfilled with stockpiled soil → **No samples warranted to assess this criterion.** Go to F.
 - ii.) Overexcavations conducted in area of trench backfilled with stockpiled soil. → **Collect overburden CSS (within backfill) every 100 lf in order to assess if remediation is needed. [NOTE: Collect discrete soil samples, not 4-point composites.]** Go to F.
No overexcavations conducted in area of trench backfilled with stockpiled soil → **No samples warranted to assess this criterion.** Go to F.

F.) Abandoned piping

- 1.) Determine whether sampling criteria and pressure testing criteria were met, including the following:
 - CCS collected at frequency of 50 lf/sample for abandoned piping
 - CSS collected from all ends of abandoned piping and changes in direction.
 - i.) Sampling frequency criteria are met → Go to 3.
 - ii.) If any sampling frequency criteria are not met → Go to 2.
- 2.) Evaluate the accessibility of the abandoned length of pipeline with regard to sampling criteria data gaps.
 - i.) Sampling criteria data gaps due to inaccessibility of abandoned piping → Go to 3.
 - ii.) Sampling criteria gaps may be addressed through additional sampling → **Collect CSS along abandoned pipeline to meet sampling criteria.** Go to 3.

3.) Assess pressure testing results for each applicable lengths of abandoned pipeline.

- i.) Passed pressure testing → **No samples warranted to assess this criterion.** Go to G.
- ii.) Failed pressure testing → **Evaluate abandoned pipeline on case-by-case basis.** Go to G.

G.) Overexcavation

1.) For each overexcavation, determine whether CSS were collected.

- i.) Yes → Go to 2.
- ii.) No → **Collect CSS at unsampled excavation, with sample frequency of 7.5 lf/sample for the overexcavation.** Go to H.

2.) Determine whether any CSS > CL.

- i.) Yes → **Collect SS at sampling location reported to contain chemicals of concern > CL.** Based on results of additional sampling, **further work may be recommended.** Go to 3.
- ii.) No → Go to 3.

3.) Determine adequacy of CSS sampling frequency.

- i.) < 7.5 lf/sample → **No samples warranted to assess this criterion.** Go to H.
- ii.) > 7.5 lf/sample → **Collect CSS on case-by-case basis, depending on excavation shape and soil accessibility to meet sampling frequency requirements.** Go to H.

H.) Trench

If CSS frequency >100 lf/sample, then evaluate site on case-by-case basis. If stockpile sampling is adequate (and overexcavations were adequately sampled or there were no overexcavations), then trench as a whole may be adequately characterized.

Table 1
General Decision Criteria for Determination of Additional Work
to be Conducted at Individual Fuel Distribution System Sections

Presidio of San Francisco, California

Level I Decision Criteria

If:

- * Chemical concentrations in confirmation soil samples were above applicable cleanup levels (i.e., TPH, PAHs, or BTEX), (a)
- * Chemical concentrations in stockpile soil samples are above applicable cleanup levels for TPH, PAHs, or for BTEX and such stockpiled soil was used as backfill; and/or
- * Chemical concentrations in LTDD treated soil are potentially above applicable cleanup levels and such LTDD-treated soil was used to backfill trenches or excavations,

Then:

- * Collect soil samples or confirmation soil samples to assess horizontal and vertical extent of affected soil.

Else:

- * Go to Level II Criteria.

Level II Decision Criteria (b)

If:

- * Removed pipeline confirmation soil sampling frequency was greater than 100 lf/sample;
- * Abandoned pipeline sampling frequency was greater than 50 lf/sample;
- * Overexcavation confirmation soil sampling frequency was greater than 7.5 lf/sample;
- * Confirmation soil samples were not collected at each overexcavation;
- * Stockpile soil sampling frequency was greater than 50 cy/sample where soil was used as backfill (c);
- * Abandoned lengths of pipe greater than 20 lf were not pressure tested; and/or
- * Abandoned piping failed pressure testing criterion.

Then:

- * Collect confirmation soil samples as appropriate to address data gaps. The need for sampling is often dictated by the presence of visually contaminated soil or the performance of overexcavation along the FDS section.

Else:

- * Go to Level III Criteria.

If:

- * Potential groundwater impacts may exist (e.g., high chemical concentrations at depths greater than 10 ft bgs where groundwater may be relatively shallow).

Then:

- * Evaluate chemical concentrations as a function of depth at sample location where petroleum hydrocarbons could potentially impact groundwater.

Table 1
General Decision Criteria for Determination of Additional Work
to be Conducted at Individual Fuel Distribution System Sections

Presidio of San Francisco, California

Abbreviations:

BTEX - Benzene, toluene, ethylbenzene, xylenes

cy- cubic yards

FDS- Fuel Distribution System

ft bgs- feet below ground surface

ft- feet

lf- linear feet

LTTD- Low-Temperature Thermal Desorption

PAHs- Polycyclic Aromatic Hydrocarbons

RWQCB- Regional Water Quality Control Board

TPH- Total Petroleum Hydrocarbons

Notes:

(a) Applicable cleanup levels used by the Army were obtained from former RWQCB Order 96-070. The same cleanup levels were incorporated into the current Order for the Presidio, RWQCB Order R2-2003-0080. The current Order also includes cleanup levels for petroleum hydrocarbons and related constituents for sites within the saltwater and freshwater ecological protection zones.

Application of the freshwater ecological protection zone values is described in the document prepared by BBL, entitled "Draft Development of Freshwater TPH-diesel and TPH-fuel oil Point of Compliance Concentrations, Presidio of San Francisco, California" and dated 15 July 2005.

(b) Level II Decision Criteria originate from the testing and sampling requirements included in former RWQCB Order 96-070.

(c) Stockpiled soil potentially used as backfill was overburden soil from the removal of FDS piping. If chemical concentrations in stockpiled soil were greater than applicable cleanup levels, stockpiled soil was supposed to be either treated at the LTTD unit or disposed off-site.

Table 2
Evaluation of Data Gaps in Fuel Distribution System Removal Program
Presidio of San Francisco, California

FDS Closure Phase Number	FDS Section	Area (A/B)	Army Recommendation	Trust Recommendation	Level I (1)				Level II (2)							Level III (3)	Remarks	Trust Recommendations for Proposed Future Work (11)	# Samples Analyzed for TPH (EPA 8015m)	# Samples Analyzed for PAHs (EPA 8270C)	# Samples Analyzed for BTEX (EPA 8021)
					CSS Potentially > CL for individual TPH?	CSS Potentially > CL for individual PAHs?	Stockpile CSS Potentially > CL used as Backfill?	LTTD Potentially in Soil > CL?	Removed Pipeline CSS Frequency > 100 ft/sample? (4)	Abandoned Pipeline Sampling Frequency > 50 ft/sample? (5)	Overexcavation Sampling Frequency > 7.5 ft/sample? (6)	SS at Each Overexcavation?	Stockpile Sampling Frequency > 50 cy/sample or none? (7)	Adequate Pressure Testing? (8)	Pressure Test Failure? (9)	Potential Groundwater Impacts? (10)					
Phase I	Area 5 Section A	B	NFA	NFA	no	no	no	no	100	NA	NA	NA	NA	NA	NA	no	CSS collected along trace of previously removed pipeline.	Request for closure submitted to Water Board.	0	0	0
Phase I	Area 5 Section B	B	NFA	NFA	no	no	no	no	92	NA	NA	NA	NA	NA	NA	no	CSS collected along trace of previously removed pipeline.	Request for closure submitted to Water Board.	0	0	0
Phase I	Area 5 Section C	B	NFA	NFA	no	no	no	no	100	NA	NA	NA	NA	NA	NA	no	CSS collected along trace of previously removed pipeline.	Request for closure submitted to Water Board.	0	0	0
Phase I	Area 5 Section D	B	NFA	NFA	no	no	no	no	100	NA	NA	NA	NA	NA	NA	no	CSS collected along trace of previously removed pipeline.	Request for closure submitted to Water Board.	0	0	0
Phase I	Area 6 Section A	B	NFA	NFA	no	no	no	no	100	NA	NA	NA	NA	NA	NA	no	CSS collected along trace of previously removed pipeline.	Request for closure submitted to Water Board.	0	0	0
Phase I	Area 6 Section B	B	NFA	NFA	NA	NA	NA	NA	0	NA	NA	NA	NA	NA	NA	NA	Former pipeline extends along the approach to the Golden Gate Bridge and within the GGBHTD's maintenance yard, and therefore is not accessible for sampling.	Request for closure submitted to Water Board.	0	0	0
TBD	BR1-1	B	CSS	CSS	no	no	no	no	76	53	5.0	yes	190	no	no	no	Stockpiled soil was inadequately sampled and TPH concentrations potentially exceeding cleanup levels (TPH > 100 mg/kg), was transported to LTTD unit for treatment. Trench backfilled with LTTD soil. Additionally, a 105 ft length of abandoned pipeline was not pressure tested and was inadequately sampled.	Collect two CSS from the overburden at 2 ft bgs (approximately 50 cy/sample for stockpiled soil) along the removed FDS pipeline and analyze for TPH. Collect one native CSS at 4.5 ft bgs along 105 ft length of abandoned piping and analyze for TPH and PAHs.	3	1	0
TBD	BR1-2	B	Mini-CAP	SS	yes	yes	no	no	24	NA	5.0	yes	53	NA	NA	no	TPH and PAH concentrations in confirmation soil samples exceed cleanup levels at overexcavations adjacent to Buildings 1206 and 1207. The excavation extents were limited by the adjacent buildings.	Collect ten native SS at 3 and 6.5 ft bgs within or near the overexcavations adjacent to Buildings 1206 and 1207 and analyze for TPH and PAHs. Additionally, the stockpile sampling frequency slightly exceeds 50 cy/sample. However, no CSS are recommended by EKI at this time because the stockpile sampling frequency is close to the required number.	10	10	0
Phase I	BR2-1	B	NFA	NFA	no	no	no	no	142	NA	NA	NA	130	NA	NA	no	No visibly stained soil was encountered and chemical concentrations in CSS were all below cleanup levels. Therefore, the low sampling frequency observed in stockpiled soil and removed piping is not likely an issue.	Request for closure submitted to Water Board.	0	0	0
TBD	BR2-2	B	NFA	SS	yes	yes	no	no	91	48	NA	NA	83	yes	no	no	One CSS, representative of soil remaining in place, potentially exceeds cleanup levels (> 575 mg/kg TPH and > 5 mg/kg PAHs). Access restrictions due to the presence of Building 1220 were cited as the reason for lack of remediation.	Collect two native SS at 3 ft bgs and one native SS 3 and 6 ft bgs and analyze for TPH and PAHs.	4	4	0
Phase I	BR2-3	B	NFA	NFA	no	no	no	no	40	17	6.3	yes	87	yes	no	no	No visibly stained soil was encountered and chemical concentrations in CSS were all below cleanup levels and stockpile was disposed offsite. Therefore, the low sampling frequency observed in stockpiled soil is not likely an issue.	Request for closure submitted to Water Board.	0	0	0
TBD	BR3-1	B	Mini-CAP	CSS, SS	yes	yes	no	no	44	56	5.3	yes	20	yes	yes	no	PAH and TPH concentrations in confirmation soil samples exceed cleanup levels next to Building 1224, 1241, and 1244. In each case, the excavation was limited by the adjacent building. A 75 ft length of piping beneath Building 1241 failed pressure testing criterion but was sampled at both ends.	Collect three native CSS at soil sample locations potentially above cleanup levels. Evaluate the vertical extent of potentially affected soil by collecting a native SS five feet below each CSS and analyze for TPH and PAHs. Analyze for PAHs only at sample locations BR3-1SB01 and BR3-1SB03. Analyze for TPH and PAHs at sample location BR3-1SB02.	2	6	0
TBD	BR3-2	B	Mini-CAP	SS	yes	yes	no	no	99	NA	3.8	yes	19	NA	NA	no	PAH and TPH concentrations in confirmation soil samples exceed cleanup levels in excavation adjacent to tree #5231. The excavation extent was limited by the tree.	Additional excavation would require tree removal. In lieu of tree removal, collect three native SS at 9.5, 14.5, and 19.5 ft bgs to assess vertical extent of affected soil remaining in place and analyze for TPH and PAHs.	3	3	0
Phase I	BR3-3	B	NFA	NFA	no	no	no	no	65	17	NA	NA	10	yes	no	no	--	Request for closure submitted to Water Board.	0	0	0
Phase I	BR3-4	B	NFA	NFA	no	no	no	no	53	NA	NA	NA	97	NA	NA	no	No visibly stained soil was encountered and chemical concentrations in CSS were all below cleanup levels. Therefore, the low sampling frequency observed in stockpiled soil is not likely an issue.	Request for closure submitted to Water Board.	0	0	0
Phase I	BR3-5	B	NFA	NFA	no	no	NA	no	73	NA	NA	NA	none	NA	NA	no	No stockpile samples collected for 97 cy of stockpiled soil used to backfill trench. Confirmation soil samples in trench were <CLs and no visibly stained soil encountered; no overexcavations conducted. Therefore, the lack of stockpiled soil samples is not likely an issue.	Request for closure submitted to Water Board.	0	0	0
Phase I	BR4-1	B	NFA	NFA	no	no	no	no	70	20	14.0	yes	50	yes	yes	no	Pipeline failed pressure testing, but was sampled with adequate frequency. The overexcavation was adequately sampled as part of the FDS MT-7 pipeline removal. Therefore, the section appears to be adequately characterized.	Request for closure submitted to Water Board.	0	0	0

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FDS Closure Phase Number	FDS Section	Area (A/B)	Army Recommendation	Trust Recommendation	Level I (1)				Level II (2)							Level III (3)	Remarks	Trust Recommendations for Proposed Future Work (11)	# Samples Analyzed for TPH (EPA 8015m)	# Samples Analyzed for PAHs (EPA 8270C)	# Samples Analyzed for BTEX (EPA 8021)
					CSS Potentially > CL for individual TPH?	CSS Potentially > CL for individual PAHs?	Stockpile CSS Potentially > CL used as Backfill?	LTTD Potentially in Soil > CL?	Removed Pipeline CSS Frequency > 100 lf/sample? (4)	Abandoned Pipeline Sampling Frequency >50 lf/sample? (5)	Overexcavation Sampling Frequency >7.5 lf/sample? (6)	SS at Each Overexcavation?	Stockpile Sampling Frequency > 50 cy/sample or none? (7)	Adequate Pressure Testing? (8)	Pressure Test Failure? (9)	Potential Groundwater Impacts? (10)					
TBD	BR5-2	B	Mini-CAP	CSS, SS	yes	yes	no	no	77	9	5.0	yes	275	yes	no	no	PAH and TPH concentrations in confirmation soil samples exceed cleanup levels in the vicinity of Building 1328, where access to soil excavation was limited by a gas line. TPH concentrations may potentially exceed cleanup levels at the lateral near Building 1326. Additionally, the stockpile sampling frequency is inadequate and uncertainty exists as to whether LTTD soil or stockpiled soil potentially above cleanup levels was used to backfill the trench between Station 9+00 and Station 11+00 .	Collect six native SS at 2, 2.5 and 5.5 ft bgs to define lateral and vertical extent of affected soil at Bldg 1328 and analyze for TPH and PAHs. Collect one native CSS at 2.5 ft bgs at the end of the lateral near Building 1326 and analyze for TPH. Collect two overburden CSS at 1.5 ft bgs between Station 9+00 and Station 11+00 and analyze for TPH and PAHs to achieve a frequency of 100 lf/sample.	9	8	0
TBD	BR5-3	B	CSS	CSS	no	no	NA	no	84	71	5.0	yes	none	yes	yes	no	A 105 ft length of pipeline near Building 1308 and 1310 failed pressure testing criteria and was not sampled at one end. No stockpile samples were collected for 257 cy of stockpiled soil used as backfill. However, trench associated with stained soil was backfilled with LTTD soil, and remaining trench length was shallow (~2.5 ft bgs) therefore back fill was mainly composed of imported soil (from 0 to 1.5 ft bgs) and no visibly stained soil was collected in area of trench backfilled with stockpiled soil. Significant lengths of lengths of FDS pipeline were abandoned in place due to concerns that the integrity of an adjacent gas line would be compromised. These lengths were deemed inaccessible.	Collect two CSS at 2.5 ft bgs along the length of 105 ft abandoned pipeline that failed pressure testing criterion. Collect two native CSS at 2.5 ft bgs at the unsampled ends of abandoned pipeline between Buildings 1300 and 1308. Analyze all CSS for TPH and PAHs.	4	4	0
TBD	BR6-1	B	NFA	CSS	no	no	NA	no	74	15	4.3	yes	none	yes	no	no	No samples were collected from 133 cy of stockpiled soil from an FDS section were visibly stained soil, based on the presence of overexcavations conducted near building 325 and between Buildings 326 and 327.	Collect three overburden CSS from the overburden (approximately 50 cy/sample for stockpiled soil) at 1.5 ft bgs and analyze for TPH and PAHs.	3	3	0
Phase I	BR6-2	B	NFA	NFA	no	no	no	no	96	NA	NA	NA	119	NA	NA	no	No visibly stained soil was encountered and chemical concentrations in CSS were all below cleanup levels. Therefore, the low sampling frequency observed in stockpiled soil is not likely an issue.	Request for closure submitted to Water Board.	0	0	0
TBD	BR6-3	B	Mini-CAP	CSS, SS	yes	yes	no	no	46	NA	3.3	yes	50	NA	NA	no	TPH and PAH concentrations in CSS representative of soil remaining in place exceed cleanup levels. The excavation extent was limited by Building 101 or was at the historical sewer. Based on water levels from nearby well 100GW101, the depth of groundwater is anticipated to be more than 50 feet. Therefore, potential impacts to groundwater are unlikely.	Conduct soil profiling at sample location BR6-3SB01 by collecting three native SS at 10, 15, and 20 ft bgs and analyze for TPH. Collect one native CSS at sample location at BR6-3SB02 at 2.5 ft bgs and analyze for TPH and PAHs. Collect one native CSS at soil sample location BR6-3SB03 at 2.5 ft bgs and analyze for TPH.	5	1	0
Phase I	BR6-4	B	NFA	NFA	no	no	no	no	48	NA	3.8	yes	72	NA	NA	no	No visibly stained soil was encountered and chemical concentrations in CSS were all below cleanup levels. Therefore, the low sampling frequency observed in stockpiled soil is not likely an issue.	Request for closure submitted to Water Board.	0	0	0
TBD	BR6-5	B	Commissary/PX CAP	Commissary/PX CAP	yes	yes	no	no	44	24	6.2	yes	42	yes	no	yes	A portion of the FDS section is located at the Commissary/PX Site. Chemical concentrations in CSS representative of soil remaining in place are above cleanup levels. Site was addressed as part of the CAP (T&R, 2005).	No further action.	0	0	0
TBD	BR7-1	B	NFA	CSS	no	no	yes	no	44	33	NA	NA	204	yes	no	no	Inadequate number of stockpile soil samples collected and the stockpile soil used as backfill exceeded cleanup levels for PAHs for CSS samples.	Collect seven overburden CSS at 2 ft bgs (approximately 100 lf/sample for removed pipeline) along length of removed pipeline and analyze for PAHs.	0	7	0
TBD	BR7-2	B	NFA	CSS	no	no	NA	no	81	NA	4.0	yes	none	NA	NA	no	No stockpile samples were collected from 66 cy of stockpiled soil at an FDS section were visibly stained soil was encountered and an excavation was conducted.	Collect two CSS from the overburden (approximately 50 cy/sample for stockpiled soil) at 2 ft bgs and analyze for TPH and PAHs.	2	2	0
TBD	BR8-1	B	Building 1065 CAP	Building 1065 CAP	yes	no	no	no	42	NA	4.4	yes	60	NA	NA	no	FDS section is located at the Building 1065 Site. Chemical concentrations in CSS representative of soil remaining in place are above cleanup levels. Area was addressed as part of an interim remedial action at the Site.	No further action.	0	0	0
TBD	BR9-1	A	NFA	CSS	no	no	no	no	97	54	NA	NA	38	yes	yes	no	A 197 ft length of abandoned pipeline failed pressure testing, but may not have been capped correctly. Abandoned pipeline was sampled at both ends.	Collect three native CSS, between 4.5 and 6 ft bgs, along length of abandoned piping, where accessible, and analyze for TPH and PAHs.	3	3	0

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					CSS Potentially > CL for individual TPH?	CSS Potentially > CL for individual PAHs?	Stockpile CSS Potentially > CL used as Backfill?	LTTD Potentially in Soil > CL?	Removed Pipeline CSS Frequency > 100 ft/sample? (4)	Abandoned Pipeline Sampling Frequency >50 ft/sample? (5)	Overexcavation Sampling Frequency >7.5 ft/sample? (6)	SS at Each Overexcavation?	Stockpile Sampling Frequency > 50 cy/sample or none? (7)	Adequate Pressure Testing? (8)	Pressure Test Failure? (9)	Potential Groundwater Impacts? (10)					
TBD	BR10-1	B	Mini-CAP	SS (LTTD), CSS, Bldg 207/231 CAP	yes	yes	no	yes	28	17	7.4	yes	49	yes	no	yes	The FDS Section is within the freshwater protection zone. TPH concentrations in two CSS may potentially exceed freshwater cleanup levels in the overexcavation near Building 220. Additionally, LTTD-treated soil was used as backfill in three excavations along Halleck Street, and no post-treatment data are available for this soil. TPH and PAH concentrations in one CSS exceeds freshwater and other cleanup levels at Building 228, where groundwater may also be potentially affected. However, remediation of soil and potentially affected groundwater near Building 228 is being addressed in the Building 207/231 CAP.	Collect two native CSS at 3 ft bgs at sampling locations BR10-1SB02 and BR10-1SB03 and analyze for TPH. Collect five overburden SS within the LTTD-treated soil in excavations along Halleck St. and analyze for TPH, PAHs, and BTEX.	7	5	5
TBD	BR10-2	B	NFA	CSS	yes	no	NA	no	58	5	NA	NA	none	yes	no	no	The FDS Section is within the freshwater ecological protection zone. TPH concentration for one confirmation soil sample potentially above freshwater cleanup levels. The stockpile is < 50 cy and no visibly stained soil was encountered (i.e. no overexcavations conducted). Therefore, no additional stockpile sampling is needed.	Collect one native CSS at 3 ft bgs at sample location BR10-2SB01 and analyze for TPH.	1	0	0
TBD	BR10-3	B	NFA	SS (LTTD), CSS	no	no	NA	yes	78	NA	3.0	yes	none	NA	NA	no	The FDS Section is within the freshwater protection zone. LTTD-treated soil used as overexcavation backfill and location is within the freshwater protection zone. Specific chemical data are not available for LTTD-treated soil. Therefore, chemical concentrations may be above freshwater cleanup levels. Stockpile is < 50 cy and the Army did not conduct stockpile sampling. Stained soil was encountered during excavation and an overexcavation was conducted.	Collect one overburden SS at 2.5 ft bgs from LTTD-treated soil at the excavation site and analyze for TPH, PAHs and BTEX. Collect one CSS at 1.5 ft bgs from the overburden and analyze for TPH and PAHs.	2	2	1
Phase I	BR11-1	B	NFA	NFA	no	no	no	no	48	NA	NA	NA	18	NA	NA	no	--	Request for closure submitted to Water Board.	0	0	0
TBD	BR12-1	B	Mini-CAP	SS	yes	no	no	no	33	NA	3.0	yes	16	NA	NA	no	TPH concentrations in confirmation soil samples exceed cleanup levels at lateral adjacent to Building 59. The excavation extent was limited by tree adjacent to Building 59.	Additional excavation would require tree removal. In lieu of tree removal, collect three native SS at 2 and 5.5 ft bgs and analyze for TPH to assess vertical and horizontal extent of TPH-affected soil.	3	0	0
TBD	BR13-1	B	NFA	CSS	yes	no	no	no	52	35	6.0	yes	126	no	no	no	The FDS Section is within the freshwater ecological protection zone. One confirmation soil sample, representative of soil remaining in place, potentially exceeds cleanup levels for freshwater protection (<1,380 mg/kg at 5 ft bgs). Stockpile soil sampling frequency is > 50 cy and overexcavation was conducted. A 131 ft length of FDS pipeline and associated lateral pipeline between Building 11 and 12 was not pressure tested, but was adequately sampled.	Collected one native CSS at 5 ft bgs at Army sample location FM16111L10, located west of Barnard Ave., and analyze for TPH. Collect two CSS, at 2 ft bgs, from overburden to meet the 50 cy/sample stockpile sampling frequency requirement and analyze for TPH and PAHs.	3	2	0
TBD	BR13-2	B	Mini-CAP	NFA	yes	no	no	no	49	NA	2.2	yes	18	NA	NA	no	The FDS Section is within the freshwater ecological protection zone, but outside the zone of application for freshwater cleanup, and therefore terrestrial cleanup levels are applicable. TPH remaining in soil > CL in the vicinity of Building 748/750 is inaccessible due to the presence of nearby utility lines. Additionally, a Mini-Cap has been conducted in the vicinity of the former UST between buildings 748/750, wherein soil and groundwater was not found to be > CL.	Soil and groundwater in the vicinity of the affected area at Building 748/750 were sufficiently characterized by the Mini-CAP conducted by the Army from 1994-1995 (MW, 1999). Therefore, no further action is recommended.	0	0	0
Phase I	BR14-1	B	NFA	NFA	no	no	no	no	76	NA	NA	NA	57	NA	NA	no	No visibly stained soil was encountered and chemical concentrations in CSS were all below cleanup levels. Therefore, the low sampling frequency observed in stockpiled soil is not likely an issue.	Request for closure submitted to Water Board.	0	0	0
TBD	BR15-1	B	NFA	NFA	no	no	no	no	59	4	NA	NA	54	yes	no	no	The FDS Section is within the freshwater ecological protection zone. No visibly stained soil was encountered and CSS were all below cleanup levels. Therefore, it is unlikely that chemicals of concern are inadequately characterized due to low sampling frequency observed in stockpiled soil.	No further action.	0	0	0
TBD	BR16-1	B	NFA	NFA	no	no	no	no	20	NA	NA	NA	4	NA	NA	no	--	No further action.	0	0	0
Phase I	CF-1	A	NFA	NFA	no	no	no	no	71	NA	NA	NA	42	NA	NA	no	--	Request for closure submitted to Water Board.	0	0	0
Phase I	CF-2	A	NFA	NFA	no	no	no	no	36	105	NA	NA	7	no	no	no	Pressure testing could not be conducted as pipe was already cut, and one end of pipeline is inaccessible beneath Building 640.	Request for closure submitted to Water Board.	0	0	0
Phase I	CF-3	A	Building 637 CAP	Building 637 CAP	yes	no	NA	no	46	NA	7.0	yes	none	yes	no	no	Area was remediated as part of 637 CAP, Excavation Area B.	Request for closure submitted to Water Board.	0	0	0
TBD	CF-4	A	Commissary/PX CAP	Commissary/PX CAP	yes	no	no	no	41	NA	NA	NA	48	NA	NA	no	The FDS Section is within the saltwater ecological protection zone. FDS section is located at the Commissary/PX Site. Chemical concentrations in CSS representative of soil remaining in place are above cleanup levels. Site was addressed as part of the CAP.	Remediation was addressed as part of the Commissary/PX CAP. No further action is recommended as part of FDS data gap analysis.	0	0	0

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					CSS Potentially > CL for individual TPH?	CSS Potentially > CL for individual PAHs?	Stockpile CSS Potentially > CL used as Backfill?	LTTD Potentially in Soil > CL?	Removed Pipeline CSS Frequency > 100 ft/sample? (4)	Abandoned Pipeline Sampling Frequency >50 ft/sample? (5)	Overexcavation Sampling Frequency >7.5 ft/sample? (6)	SS at Each Overexcavation?	Stockpile Sampling Frequency > 50 cy/sample or none? (7)	Adequate Pressure Testing? (8)	Pressure Test Failure? (9)	Potential Groundwater Impacts? (10)					
Phase I	CF-6	A	NFA	NFA	no	no	no	no	41	NA	NA	NA	25	NA	NA	no	--	Request for closure submitted to Water Board.	0	0	0
Phase I	CF-7	A	SS	Crissy Field RAP	yes	yes	no	no	77	NA	10.8	yes	45	NA	NA	no	Additional excavation was conducted by the Army as part of the Crissy Field RAP and additional sampling was conducted by the Trust in the vicinity of the overexcavation. Therefore, the sampling frequency subsequent to the original FDS removal is < 7.5 ft/sample, and the FDS section is adequately characterized.	Request for closure submitted to Water Board.	0	0	0
Phase I	CF-8	A	NFA	NFA	no	no	no	no	75	NA	NA	NA	87	NA	NA	no	The FDS Section is within the saltwater ecological protection zone. No visibly stained soil was encountered and chemical concentrations in CSS were all below cleanup levels. Therefore, the low sampling frequency observed in stockpiled soil is not likely an issue.	Request for closure submitted to Water Board.	0	0	0
Phase I	CF-9	A	NFA	NFA	no	no	no	no	89	NA	NA	NA	16	NA	NA	no	The FDS Section is within the saltwater ecological protection zone.	Request for closure submitted to Water Board.	0	0	0
Phase I	CF-10	A	NFA	NFA	no	no	no	no	78	NA	NA	NA	31	NA	NA	no	The FDS Section is within the saltwater ecological protection zone.	Request for closure submitted to Water Board.	0	0	0
Phase I	CF-11	A	NFA	NFA	no	no	no	no	44	NA	NA	NA	11	NA	NA	no	--	Request for closure submitted to Water Board.	0	0	0
TBD	CF-12	A	Commissary/PX CAP	Commissary/PX CAP	yes	no	no	no	56	NA	NA	NA	31	NA	NA	no	FDS section is located at the Commissary/PX Site. Chemical concentrations in CSS representative of soil remaining in place are above cleanup levels. Site was addressed as part of the CAP.	Remediation was addressed as part of the Commissary/PX CAP. No further action is recommended as part of FDS data gap analysis.	0	0	0
Phase I	MT-1	A	NFA	NFA	no	no	NA	no	109	109	NA	NA	none	yes	no	no	The FDS Section is within the saltwater ecological protection zone. No visibly stained soil was encountered and CSS were all below cleanup levels. Therefore, the low sampling frequency of stockpiled soil, abandoned piping, and removed piping is not likely an issue.	Request for closure submitted to Water Board.	0	0	0
TBD	MT-2	B	CAP	970/971 Mini-CAP, CSS	yes	yes	no	no	21	55	10.7	yes	47	yes	no	yes	Chemical concentrations in CSS representative of soil remaining in place exceed cleanup levels for PAHs at sample location FM02012W02, which is not located at the Building 970/971 Area. Soil samples are >CL within the overexcavation next to Hoffman Street. Additionally, potential groundwater impacts may exist (TPH = 1360 mg/kg at 21.5 ft bgs at sample location FM02009W21 (21.5)) in the vicinity of the overexcavation. Potential soil and groundwater impacts in the vicinity of the overexcavation will be addressed as part of the Building 970/971 Mini-CAP.	Collect one native CSS, at 3.5 ft bgs, at sampling location FM02012W02 and analyze for PAHs.	0	1	0
TBD	MT-3	B	CSS	CSS, SS	no	yes	yes	no	62	65	5.0	yes	31	yes	no	yes	PAH concentrations in CSS representative of soil remaining in place potentially exceed cleanup levels for PAHs in soil sample FM03021W03. Stockpile soil is potentially > CLs (concentrations of TPH in 4 out of 8 stockpile samples was TPH > 62.5 mg/kg by immunoassay). The sampling frequency for abandoned piping was inadequate. However, the abandoned piping is located beneath a portion of Highway 101. This section of freeway is very difficult to access. Additionally, potential groundwater impacts may exist near Building 1299 (TPH < 15,000 mg/kg at 12.5 ft bgs at sample location FM03021W06). Depth to groundwater has been measured at 25 to 30 ft bgs in nearby monitoring well 1213GW101.	Collect one native CSS at 4 ft bgs at soil sampling location MT-3SB05 and analyze for PAHs. Collect seven CSS, at 2 or 4 ft bgs, within overburden along the trenchline at 100 lf/sample of pipeline removed and analyze for TPH and PAHs. To assess the extent of affected soil at sample location MT-3SB06, collect one native CSS at 12.5 ft bgs and two native SS at 17.5 and 22.5 ft bgs and analyze for TPH and PAHs.	10	11	0
TBD	MT-4	B	CSS	CSS	no	no	yes	no	126	NA	6.4	yes	95	NA	NA	no	TPH concentrations in one stockpile soil sample collected at Station 24+00 potentially exceeded cleanup levels (> 62.5 mg/kg) was used as backfill near Station 24+00. IT recommended CSS of overburden along trench near Station 24+00. Additionally, CSS along removed trench and stockpiled soil is inadequate.	Collect six overburden CSS at 2 ft bgs along parallel lengths of removed trench between Stations 23+00 and 26+00 (section most likely to have had stockpiled soil > CL used as backfill) and analyze for TPH.	6	0	0
TBD	MT-5	B	CSS	CSS, SS	no	yes	no	no	85	42	7.1	yes	84	yes	yes	no	PAH concentrations in one CSS (FM05035T02) may potentially exceed cleanup levels (> 5.0 mg/kg). A 140-ft length of pipeline failed pressure testing criteria and had inadequate sampling frequency. Stockpile soil was used as backfill only between Stations 37+00 and 39+00. Overburden sampling frequency is close to the required frequency.	Collect one native CSS at 4.5 ft bgs at sample location MT-5SB01 and analyze for PAHs. Collect one native SS between 6 to 8 ft bgs at the center of the 140-ft length of abandoned pipeline and analyze for TPH and PAHs.	1	2	0

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					CSS Potentially > CL for individual TPH?	CSS Potentially > CL for individual PAHs?	Stockpile CSS Potentially > CL used as Backfill?	LTTD Potentially in Soil > CL?	Removed Pipeline CSS Frequency > 100 ft/sample? (4)	Abandoned Pipeline Sampling Frequency >50 ft/sample? (5)	Overexcavation Sampling Frequency >7.5 ft/sample? (6)	SS at Each Overexcavation?	Stockpile Sampling Frequency > 50 cy/sample or none? (7)	Adequate Pressure Testing? (8)	Pressure Test Failure? (9)	Potential Groundwater Impacts? (10)					
TBD	MT-6	B	Mini-CAP	Building 1349 CAP	yes	yes	yes	no	100	NA	4.8	yes	42	NA	NA	no	FDS section is located at the Building 1349 Site. Chemical concentrations in CSS representative of soil remaining in place were found to be above cleanup levels at Station 43 and will be remediated as part of the Building 1349 CAP. TPH concentrations in stockpile soil used to backfill between sampling locations FM06041T01 and FM6042T02 may have exceeded the TPH > 100 mg/kg discharge criteria (TPH > 71 mg/kg). This area was investigated as part of the 1349 CAP and TPH and PAHs concentrations in soil sample 1349SB114/1349SB115 were below cleanup levels (BBL, 2006).	Future remedial action will be conducted as part of the 1349 CAP. No further action is recommended as part of FDS data gap analysis.	0	0	0
TBD	MT-7	B	NFA	Building 1349 CAP	yes	yes	no	no	77	NA	7.3	yes	114	NA	NA	no	Chemical concentrations in CSS representative of soil remaining in place were found to be above cleanup levels. Remediation of affected soil will be conducted as part of the Building 1349 CAP (BBL, 2006).	No further action is recommended as part of FDS data gap analysis.	0	0	0
Phase I	MT-8	B	NFA	NFA	no	no	no	no	110	NA	NA	NA	none	NA	NA	no	No visibly stained soil was encountered and chemical concentrations in CSS were all below cleanup levels. Therefore, the low sampling frequency observed in stockpiled soil and removed piping is not likely an issue.	Request for closure submitted to Water Board.	0	0	0
TBD	MT-9	B	NFA	CSS	no	no	NA	no	82	30	4.8	yes	none	no	no	no	No stockpile samples were collected from 110 cy of stockpiled soil from a FDS section where visibly stained soil was encountered and an excavation was conducted. Pressure testing was not conducted at one 60 ft length of abandoned pipeline, but both ends were sampled and sampling frequency for abandoned piping is adequate.	Collect three CSS from the overburden (approximately 50 cy/sample for stockpiled soil) at 2 ft bgs and analyze for TPH and PAHs.	3	3	0
TBD	MT-10	B	Mini-CAP, CSS	SS	yes	yes	no	no	91	NA	NA	NA	202	NA	NA	no	CSS representative of soil remaining in place potentially exceeds cleanup levels (> 575 mg/kg TPH and > 5 mg/kg PAHs) at soil sample location FM10068T01. Additionally, IT recommended CSS of overburden material due to TPH at 130 mg/kg, which is above discharge criteria (> 100 mg/kg) for stockpile soil. However, this TPH concentration is not > CL for TPH remaining in place. Therefore, no additional sampling is recommended for soil above discharge criteria.	Collect one native SS, at 0.5 ft bgs, at Station 68+70 (Army soil sampling location FM10068T01) and analyze for TPH and PAHs.	1	1	0
TBD	MT-11	B	CSS	CSS	no	no	yes	no	74	6	NA	NA	69	yes	no	no	Total carcinogenic PAH concentrations (< 6.2 mg/kg) potentially exceed cleanup levels in two out of three stockpile soil samples used as backfill. The third stockpile soil sample was not analyzed by the fixed laboratory. Immunoassay results of stockpile soil samples are inconsistent with lab analytical results.	Collect eight overburden CSS at 2 ft bgs at frequency of 100 lf/sample along length of removed piping and analyze for PAHs.	0	8	0
TBD	MT-12	B	NFA	CSS	no	no	yes	no	59	NA	8.0	yes	109	NA	NA	no	Total carcinogenic PAH concentrations (< 6.2 mg/kg) in stockpile soil sample used as backfill may exceed applicable cleanup level of 5.6 mg/kg. Stockpile soil sampling frequency was inadequate. CSS at overexcavation was very close to acceptable frequency.	Collect four CSS at 2 ft bgs from overburden along length of trench between Station 84+00 and 87+00 (100 lf/sample of trench removed) and analyze for PAHs.	0	4	0
TBD	MT-13	B	NFA	CSS	no	no	NA	no	62	19	8.0	yes	none	yes	no	no	No stockpile samples were collected from a FDS section where 74 cy of stockpile soil was used as backfill and visibly stained soil was encountered and an excavation was conducted. Overexcavation confirmation sampling close to required frequency.	Collect two CSS from the overburden (50 cy/sample for stockpiled soil) at 2 ft bgs and analyze for TPH and PAHs.	2	2	0

Table 2
Evaluation of Data Gaps in Fuel Distribution System Removal Program
Presidio of San Francisco, California


FDS Closure Phase Number	FDS Section	Area (A/B)	Army Recommendation	Trust Recommendation	Level I (1)				Level II (2)							Level III (3)	Remarks	Trust Recommendations for Proposed Future Work (11)	# Samples Analyzed for TPH (EPA 8015m)	# Samples Analyzed for PAHs (EPA 8270C)	# Samples Analyzed for BTEX (EPA 8021)
					CSS Potentially > CL for individual TPH?	CSS Potentially > CL for individual PAHs?	Stockpile CSS Potentially > CL used as Backfill?	LTTD Potentially in Soil > CL?	Removed Pipeline CSS Frequency > 100 ft/sample? (4)	Abandoned Pipeline Sampling Frequency >50 ft/sample? (5)	Overexcavation Sampling Frequency >7.5 ft/sample? (6)	SS at Each Overexcavation?	Stockpile Sampling Frequency > 50 cy/sample or none? (7)	Adequate Pressure Testing? (8)	Pressure Test Failure? (9)	Potential Groundwater Impacts? (10)					
TBD	MT-14	B	CAP, Mini-CAP, CSS	CSS, SS Infantry Terrace CAP or Mini-CAP	yes	yes	yes	no	26	40	3.7	no	30	no	yes	no	FDS section is located at Infantry Terrace. Chemical concentrations in CSS representative of soil remaining in place were potentially >CLs for TPH and PAHs at location FM14094L02 (PAHs >5.0 mg/kg and TPH >575 mg/kg) and FM14097L01 (TPH <3,551 mg/kg and PAHs >5.0 mg/kg). Stockpiled soil with PAH concentrations above cleanup levels was used as backfill (PAH = 6.8 mg/kg in stockpile samples FM14095S01 and FM14095S02). Although the overall overexcavation sampling frequency was adequate, only one confirmation soil sample was collected for an excavation 30 feet in length near Building 334. Additional soil sampling by GRC in 2005 found TPH at one shallow soil sample location, at soil sample location FM14SB108(6.5) (TPH-d= 89 mg/kg and TPH-Fo = 230 mg/kg), and TPH directly beneath the lateral piping was not analyzed. Soil at Overexcavation No. 7 was found to have CSS above cleanup levels, near Building 340 and near Building 341, where soil was inaccessible for further excavation. Additional excavation work (45 ft long, 6 ft deep and 8 ft wide) was completed along the western side of the excavation as part of the basement waterproofing of Building 340, and the majority of affected soil was likely removed. No COCs were detected in groundwater samples collected from wells FM14EX07MW101 and FM14EX07MW102, in the vicinity of Overexcavation No. 7. However, soil above cleanup levels is still present in the vicinity of Overexcavation No. 7 and will be remediated as part of a CAP or Mini-CAP conducted by the Trust.	Collect seven overburden CSS at 1.5 to 2 ft bgs along removed pipeline and analyze for TPH and PAHs. Collect one native CSS at 2.5 at GRC sample location MT-14SB08. Assess vertical extent of affected soil at sample location MT-14SB12 by collecting one native CSS at 2 ft bgs and one native SS at 7 ft bgs and analyze all for TPH and PAHs.	16	16	0
TBD	MT-15	B	CSS	CSS	no	no	no	no	53	35	4.1	yes	35	yes	yes	no	A 167-ft length of abandoned pipeline failed pressure testing, was grouted, and sampled at both ends. Approximately 75 ft of the abandoned pipe length is located beneath Building 45. However, the remaining portion of the pipeline appears to be accessible and was not sampled. A 24-ft section of pipeline located beneath a tree failed pressure testing, and was not sampled at both ends. Additionally, IT recommended CSS of overburden material due TPH exceeding the 100 mg/kg discharge criterion (TPH = 280 mg/kg). However, TPH concentrations are not above applicable cleanup levels and no sampling is recommended in the overburden.	Collect two native CSS at 3.5 ft bgs adjacent to Building 45, for a sampling frequency of 1 sample per 50 ft of abandoned piping. Collect one native CSS at 2.5 ft bgs at the unsampled end of the 24 ft length of piping adjacent to a tree. All samples should be analyzed for TPH and PAHs.	3	3	0
TBD	MT-16	B	CSS	CSS	no	no	yes	no	35	59	NA	NA	20	no	no	no	TPH and PAH concentrations (> 62.5 mg/kg TPH and > 1 mg/kg PAHs) in a portion of stockpiled soil was likely used as trench backfill. Abandoned lengths of lateral piping adjacent to Buildings 11 through 16 were not pressure tested but were sampled at a frequency very close to the acceptable frequency.	Collect three overburden CSS at 1.5 ft bgs between Army samples FM16109L03 and FM16111L01, which likely received stockpiled soil from Army soil samples FM16111S01 and FM16111S02, and analyze for TPH and PAHs (approximately 100 lf/sample).	3	3	0
TBD	MT-17	B	CSS	CSS	no	no	yes	no	33	23	8.0	yes	190	no	no	no	An inadequate number of stockpile soil samples were collected and chemical concentrations in one stockpile soil samples potentially exceeded cleanup levels (TPH > 100 mg/kg). Additionally, pressure testing was not conducted for a 75 ft length of abandoned piping. CSS of the overexcavation was very close to acceptable frequency. This abandoned pipeline was deemed inaccessible due to the presence of trees and utility lines.	Collect nine overburden CSS at 1.5 to 2 ft bgs at approximately 100 lf/sample and analyze for TPH. Accessibility of the 75 ft length of abandoned piping was reassessed, and deemed accessible for the purposes of additional sampling. Collect one CSS, at 2.5 ft bgs, along abandoned piping length and analyze for TPH and PAHs.	10	1	0

Table 2
Evaluation of Data Gaps in Fuel Distribution System Removal Program
Presidio of San Francisco, California

Abbreviations:

- number
> CL - above cleanup levels
Army - U.S. Army Corps of Engineers
BTEX - benzene, toluene, ethylbenzene, xylenes
CAP - Corrective Action Plan
Commissary/PX - Commissary Post-Exchange
CSS - Confirmation Soil Sample
cy - cubic yard
EKI - Erler & Kalinowski, Inc.
FDS - fuel distribution system
ft - feet
GGBHTD - Golden Gate Bridge Highway and Transportation District
IT - International Technology Corporation
lf - linear feet
LTTD - low temperature thermal desorption
NA - not applicable
NFA - no further action
PAHs- polycyclic aromatic hydrocarbons
RAP- Remedial Action Plan
SS - soil sample
TBD - closure request phase is to be determined after implementation of FSP or other activities at CAP or Mini-CAP sites.
TPH - total petroleum hydrocarbons

Legend

 Does not meet selected criteria

Notes:

- (1) Additional soil sampling is required for all FDS sections which fail any portion of Level I Decision Criteria (except at Section BR13-2, which had additional sampling performed in the vicinity as part of the 748/750 Mini-CAP). Applicable cleanup levels for each FDS Section are included in Appendix F.
- (2) Additional soil sampling may be required for FDS sections which fail any portion of Level II Decision Criteria.
- (3) An assessment of soil concentration as a function of depth or groundwater sampling is required for FDS sections which fail Level III Decision Criteria.
- (4) Former Water Board Order 96-070 required a sampling frequency of >100 lf/sample of trench, including one confirmation soil each end of removed pipeline, one confirmation soil sample at each change in direction, and one confirmation sample at each intersection with lateral piping. CSS collected at a sampling frequency > 100 lf/sample of pipeline removed are highlighted in gray.
- (5) Former Water Board Order 96-070 required a sampling frequency of 50 lf/sample of accessible abandoned piping. If the piping was inaccessible for sampling, the Army generally collected samples at both ends of abandoned piping, except for short laterals. CSS collected at a sampling frequency > 50 cy/sample are highlighted in gray.
- (6) The Army planned to sample overexcavation lengths at a frequency of > 7.5 lf/sample. Highlighted fields indicate sampling frequency of > 7.5 lf/sample.
- (7) The Army recommended confirmation soil sampling at frequency of 50 cy/sample. FDS sections where stockpiled soil was not sampled are indicated as NA. FDS sections where > 50 cy of stockpiled soil were generated and no samples were collected or FDS Sections where the minimum sampling frequency of 50 cy/sample was not met are highlighted in gray.
- (8) Prior to November 1996, the Army performed pressure testing on abandoned pipeline > 50 lf and collected samples at a frequency of 50 lf/sample of abandoned piping. Subsequently, this provision was amended, and pressure testing was recommended on abandoned FDS pipeline > 20 lf, with soil samples collected from exposed ends of abandoned piping. Grouting of abandoned FDS pipeline was also recommended. FDS sections with abandoned piping >50 lf were pressure tested. Sections where pressure testing met these criteria are indicated as "yes", otherwise "no" is indicated and the cell is highlighted in gray.
- (9) FDS sections where abandoned piping > 50 lf failed pressure testing is indicated as "yes" and highlighted in gray, otherwise "no" is indicated.
- (10) Potential groundwater impacts are based on the presence/absence of significantly affected soil at depth (e.g., > 10 ft bgs), where the reported groundwater at the Site is generally within 15 ft of the affected soil.
- (11) For purposes of this investigation, "overburden" refers to the soil that was excavated by the Army as part of the FDS removal and used as backfill. "Native" soil is soil that was not excavated by the Army as part of the FDS removal and remediation activities.

References:

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International Technology Corporation ("IT"), 1999. *Fuel Distribution System Closure Report, Presidio of San Francisco, California.* May.

Geo/Resource Consultants, Inc. ("GRC"), 2006. *Mini-CAP Additional Investigations, Presidio of San Francisco.* December.

Montgomery Watson ("MW"), 1999. *Draft Round 1 Group 2 Mini-Corrective Action Plans, Petroleum Sites Cleanup Program, Presidio of San Francisco, California.* May.

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Treadwell & Rollo, Inc. ("T&R"), 2005. *Final Corrective Action Plan- Commissary/PX Study Area, Presidio of San Francisco, California.* December.

Appendix B

Field Methods and Procedures

APPENDIX B

FIELD METHODS AND PROCEDURES FOR DRILLING AND SAMPLING ALONG THE FORMER FUEL DISTRIBUTION SYSTEM

**The Presidio Trust
Presidio of San Francisco
San Francisco, California**

B. DRILLING AND SAMPLING METHODS

The field methods and procedures described herein are descriptions of environmental sampling protocols employed by EKI and/or its subcontractors during the Fuel Distribution System (“FDS”) field investigation performed for the Presidio Trust from August to October 2007 and for Addendum No. 1 for FDS Section MT-14 in August 2008. The methods described below are for environmental characterization purposes only.

B.1 Field Work Preparation

Between 6 August and 8 August 2007, EKI marked approximately 130 sample locations in 29 sections of the FDS in the Presidio of California. Locations on asphalt or concrete were marked with white paint and locations on lawns and in the forest were marked with orange flags. Similar procedures were performed at FDS Section MT-14 on 29 July, 2008.

EKI contracted with PLS Surveys, Incorporated (“PLS Surveys”), a California licensed land surveyor of Oakland, California to locate samples in sections MT-10, MT-11, and MT-12, as local landmarks were not present to permit marking locations without highly-accurate surveying equipment.

After marking each of the 29 FDS sections in white paint, on 20 September 2007, EKI contacted Underground Services Alert (“USA”) in order to notify the utilities of sampling activities in the 29 FDS sections. USA was also contacted prior to the August 2008 sampling at FDS Section MT-14. Similar to other Trust projects, activities associated with utility clearance (including utility locating), permitting or other regulatory requirements, and coordinating for the Presidio-specific Trust reviews and compliance activities (e.g., N²) were performed and coordinated by the Trust. Samples with utility conflicts were either moved laterally along the FDS line or to within two feet of the FDS line, depending on field conditions.

B.2 Drilling Methods

Between 24 September and 15 October 2007, 114 soil boreholes were drilled by Gregg Drilling and Testing, Inc. (“Gregg”) to a depth between 1.5 feet below ground surface (“ft bgs”) and 23 ft bgs using either a hand auger or a Rhino limited-access, track-mounted drill rig (“Rhino”). Soil boreholes were continuously sampled using either a 2-inch outside diameter hand auger or a 1.5-inch outside diameter split spoon for the direct-push Rhino. Generally, boreholes deeper than 10 ft bgs were drilled using the Rhino rig and boreholes with a total depth less than 10 ft bgs were advanced using a hand auger.

Between 11 and 14 August 2008, 14 soil boreholes were drilled by EKI and by Gregg along the FDS Section MT-14 to depths between 1.5 and 7 ft bgs using either a hand auger or by direct push. Well FM14MW103 was installed using a CME-850 drill rig and hollow stemmed augers.

All downhole equipment was decontaminated prior to drilling at each location. Decontamination was accomplished using a three-step method, which included (1) washing in a bucket of tap water mixed with Liquinox, a non-sulfate detergent, (2) rinsing with clean tap water, and (3) rinsing with distilled water.

An EKI geologist, under the supervision of a California-licensed Professional Geologist, was present during all drilling activities to document encountered soils, perform field screening with an organic vapor meter (“OVM”), and prepare selected soil samples for subsequent physical or chemical analysis at the designated laboratory. The soil boreholes were stratigraphically logged using the Unified Soil Classification System. Soil color was described according to the Munsell Soil Color system. EKI field staff implemented the drilling activities in accordance with its Health and Safety Plan for the project. Borehole logs can be found in Appendix H.

B.3 Soil Sampling Methods

In the 2007 investigation, EKI collected 123 soil samples from 114 soil boreholes along 29 FDS sections as shown on Figures 2 through 29. In the August 2008 investigation of FDS Section MT-14, EKI collected 15 soil samples from 14 soil boreholes. In order to meet the Presidio Trust’s Quality Assurance Project Plan (“QAPP”) field quality control sampling frequencies of 10% for duplicate samples and 5% for matrix spike/matrix spike duplicate (“MS/MSD”) samples, EKI collected 14 duplicate samples and 8 MS/MSD samples in 2007, and 2 duplicate and 1 MS/MSD samples in 2008. Samples were collected in accordance with the field methods and procedures as specified in Standard Operating Procedure (“SOP”) 001, SOP 009, SOP 013, SOP 014, and SOP 015 of the QAPP.

Soil samples were collected using a 2-inch hand auger, a 2-inch butyrate liner, or a 1.5-inch split spoon, depending on the method of drilling for each borehole. Generally, soil samples were collected from depths between 1.5 to 3 ft bgs at overburden sampling

locations, from 2 to 10.5 ft bgs in native soil sampling locations where a vertical chemical profile was not recommended, and between 9.5 to 23 ft bgs in native soil sampling locations where a vertical chemical profile was recommended. The depths and corresponding laboratory analyses for proposed soil samples are summarized in Table 3 of the main report.

Soil samples were analyzed for the specific chemicals of concern, which may include total petroleum hydrocarbons as diesel (“TPHd”) and fuel oil (“TPHfo”), polycyclic aromatic hydrocarbons (“PAHs”), and benzene, toluene, ethylbenzene, and xylenes (“BTEX”), depending on the FDS section and identified data gaps. The results of the soil sampling can be found in Tables 4, 5, and 6 of the field sampling report.

Soil samples collected for TPHd, TPHfo, and PAHs were placed into 8-oz glass jars, labeled with a unique identification name and time, and then placed on ice in a cooler for temporary storage while in transit to the laboratory for chemical analysis. Chain-of-custody records were initiated to document sample handling and delivery to the analytical laboratory. Soil samples collected for BTEX were obtained using three encore samplers sampled from undisturbed soil as well as an additional 8-oz jar per sample. Soil samples for BTEX were labeled and placed on ice immediately after sampling.

B.4 Investigation Derived Waste

Wastes generated from soil sampling activities included soil from the sampling of shallow soil borings and water from decontamination of soil sampling equipment. Soil and water wastes were temporarily contained in 5-gallon plastic buckets during completion of field activities each day and then transferred to DOT-approved 55-gallon drums. The 55-gallon drums were temporarily stored onsite as directed by the Trust. Waste and soil containers were properly labeled as to their contents and dates of generation, and were disposed off-Site by the Trust in accordance with applicable state and federal laws.

B.5 Surveying

Soil sample locations for the first investigation were surveyed by PLS Surveys between 4 October and 15 October 2007, and soil sample locations and wells along the FDS Section MT-14 were surveyed by PLS Surveys on 28 August 2008. The surveying was done in accordance with GeoTracker specifications as well as SOP 013. The horizontal coordinates were reported in NAD 83 and the vertical coordinates were reported in both the North American Vertical Datum 88 as well as the 1907 Presidio Lower Low Water vertical datum. Survey data are provided in Appendix E.

Appendix C

Laboratory Analytical Results for Soil Samples
(included as CD)

Appendix D

Data Validation Report

DEC 28 2007

ERLER & KALINOWSKI, INC.**TO:** John DeWitt, Erler & Kalinowski, Inc.

December 21, 2007

FROM: Donna Breau, DataVal, Inc.

Erler & Kalinowski Project No. A70004.16

DB 12/21/07

**DATA VALIDATION SUMMARY REPORT FOR THE FUEL DISTRIBUTION SYSTEM
FIELD SAMPLING EVENT, THE PRESIDIO OF SAN FRANCISCO, CA****LABORATORY:** Curtis & Tompkins, Ltd., Berkeley, CA**SAMPLING DATES:** September 24 through October 15, 2007

Data validation of Levels III and IV laboratory data packages was performed according to the project-specific guidelines. These guidelines were outlined in the Presidio-wide Quality Assurance Project Plan, Sampling and Analysis Plan, April, 2001; and the U. S. Environmental Protection Agency Contract Laboratory Program National Functional Guidelines for Organic Data Review, October, 1999.

The data were reviewed for holding times, surrogate recoveries, laboratory blanks, laboratory control samples, matrix spikes and matrix spike duplicates, GC/MS tunes, initial calibrations, continuing calibration verification standards, internal standards, field QC samples and compound identification and quantitation.

The following paragraphs highlight the essential findings of the data validation effort:

I. Volatile Organic Compounds (VOCs) by GC/MS (8260B)

Overall, the data are usable as reported. Qualification was not required.

A. Reporting Limits

The laboratory reporting limits for benzene, ethylbenzene, toluene and xylenes in soil matrix samples met the project-required reporting limits. It should be noted that the reporting limits for all soils were raised due to dry weight correction.

B. Holding Times

Technical holding time criteria were met for all project samples.

C. Surrogate Recoveries

Surrogate spike recoveries met QC acceptance criteria for all project samples.

D. Blanks

Target analytes were not observed in any laboratory method blanks associated with the project samples.

- E. Laboratory Control Samples
All QC criteria were met for the laboratory control samples associated with the project samples.
- F. Matrix Spike/Matrix Spike Duplicate
All QC criteria were met for the matrix spikes and matrix spike duplicates associated with the project samples.
- G. GC/MS Tunes
All QC criteria were met for the GC/MS tunes associated with the project samples.
- H. Initial Calibration
Initial calibration criteria were met for all calibration standards associated with the project samples.
- I. Continuing Calibration
Continuing calibration criteria were met for all continuing calibration standards associated with the project samples.
- J. Internal Standards
Internal standard areas and retention times met QC acceptance criteria for all project samples.
- K. Compound Identification and Quantitation
The sample analyzed for BETX in laboratory sample delivery group 198002 received full (Level IV) data validation. This included re-calculation of surrogate values, GC/MS tunes, initial and continuing calibrations and internal standard areas; in addition to re-calculation of all reported results for BETX in this sample. The reported results for BETX in this sample were verified as correctly reported by the laboratory.

II. **Polynuclear Aromatic Hydrocarbons (PAHs) by GC/MS (8270-SIM)**

Overall, the data are usable as reported with any added qualifiers. Qualifications were required for the reasons noted in Sections I and J.

- A. Reporting Limits
The laboratory reporting limits for PAHs in soil matrix samples met the project-required reporting limits, with the following exceptions:
 - 1. Many samples were analyzed at dilutions due to the dark, viscous nature of the sample extracts. The reporting limits were raised by the dilution factors.
 - 2. Samples BR1-2SB01(6.5) (197830-002) and BR1-2SB03(6.5) (197830-005) were analyzed at dilutions due to the presence of non-target compounds. The reporting limits were raised by the dilution factors.

3. The sample extract would not concentrate to the normal volume for sample MT-13SB02(2.0) (197916-008); additional dilution was required at the instrument due to the dark, viscous nature of the sample extract. The reporting limits were raised by the dilution factor.
 4. It should be noted that the reporting limits for all soils were raised due to dry weight correction.
- B. Holding Times
Technical holding time criteria were met for all project samples.
- C. Surrogate Recoveries
Surrogate spike recoveries met QC acceptance criteria for all project samples, with the following exceptions:
1. Samples which required dilutions of five-fold or greater and had failing surrogate recoveries did not require qualification, and were not noted in this report.
 2. Samples with less than two failing base-neutral surrogate recoveries did not require qualification, and were not noted in this report.
- D. Blanks
Target analytes were not observed in any laboratory method blanks associated with the project samples, with the following exception:
1. Method blank QC411433 had a detected level of naphthalene at 1.2 ug/kg. The associated project samples were non-detect for naphthalene, and qualification was not required.
- E. Laboratory Control Samples
All QC criteria were met for the laboratory control samples associated with the project samples.
- F. Matrix Spike/Matrix Spike Duplicate
All QC criteria were met for the matrix spikes and matrix spike duplicates associated with the project samples, with the following exceptions:
1. The percent recoveries for acenaphthene were outside the 31%-137% project acceptance criteria in QC samples MT-3SB01(2.5) (197978-001) MS/MSD. The sample was diluted five-fold for acenaphthene analysis and qualification was not required. (QC Batch 130327)
 2. The percent recovery for acenaphthene was outside the 31%-137% project acceptance criteria and the percent recovery for pyrene was outside the 35%-142% project acceptance criteria in QC sample 198257-006 MSD. The parent sample was from a site unrelated to the project site, and qualification of project samples was not required. (QC Batch 130758)
- G. GC/MS Tunes
All QC criteria were met for the GC/MS tunes associated with the project samples.

H. Initial Calibration

Initial calibration criteria were met for all calibration standards associated with the project samples.

I. Continuing Calibration

Continuing calibration criteria were met for all continuing calibration standards associated with the project samples, with the following exceptions:

1. Qualification was not required for samples with non-detect results that were associated with high-failing continuing calibration verification (CCV) standards. Those failures were not noted in this report.
2. The 10/4/07 at 20:05 CCV standard analyzed on instrument MSBNA07 had benzo(b)fluoranthene with a percent difference (%D) greater than the +/-25%D acceptance criteria at 26%. The detected results for benzo(b)fluoranthene in the associated project samples were qualified as estimated with a high bias (J+).
3. The 10/8/07 at 9:30 CCV standard analyzed on instrument MSBNA02 had benzo(g,h,i)perylene with a %D greater than the +/-25%D acceptance criteria at 27%. The detected results for benzo(g,h,i)perylene in the associated project samples were qualified as estimated with a high bias (J+).
4. The 10/9/07 at 8:51 CCV standard analyzed on instrument MSBNA08 had indeno(1,2,3-cd)pyrene and dibenz(a,h)anthracene with %Ds less than the +/-25%D acceptance criteria at -30% and -35%, respectively. The results for indeno(1,2,3-cd)pyrene and dibenz(a,h)anthracene in the associated project sample were qualified as estimated with a low bias (J-/UJ).
5. The 10/10/07 at 12:51 CCV standard analyzed on instrument MSBNA02 had benzo(g,h,i)perylene with a %D greater than the +/-25%D acceptance criteria at 44%. The detected results for benzo(g,h,i)perylene in the associated project samples were qualified as estimated with a high bias (J+).
6. The 10/22/07 at 9:29 CCV standard analyzed on instrument MSBNA03 had benzo(b)fluoranthene with a %D greater than the +/-25%D acceptance criteria at 28%. The detected results for benzo(b)fluoranthene in the associated project samples were qualified as estimated with a high bias (J+).
7. The 10/23/07 at 7:33 CCV standard analyzed on instrument MSBNA08 had indeno(1,2,3-cd)pyrene, dibenz(a,h)anthracene and benzo(g,h,i)perylene with %Ds less than the +/-25%D acceptance criteria at -29%, -29% and -30%, respectively. The detected results for indeno(1,2,3-cd)pyrene, dibenz(a,h)anthracene and benzo(g,h,i)perylene in the associated project sample were qualified as estimated with a low bias (J-).

See Table 2 of this report for a summary of qualifications due to continuing calibration verification percent difference failures.

J. Internal Standards

Internal standard areas and retention times met QC acceptance criteria for all project samples, with the following exceptions:

1. Samples with non-detected results and high-failing internal standard areas did not require qualification, and were not noted in this report.
2. Four project samples had internal standard areas outside the -50% to +100% acceptance criteria. The results for the compounds associated with the outlying internal standards were qualified as estimated (J/UJ). The following table lists the samples with failing internal standards.

Project Sample ID	Laboratory Sample ID	Internal Standard	Area Counts	Area Acceptance Range
MT-13SB02(2.0)	197916-008	Perylene-d12	66775	71768-287070
MT-16SB01(1.5)	197916-009	Perylene-d12	63605	71768-287070
MT-16SB02(1.5)	197916-010	Perylene-d12	68467	71768-287070
DUP-1-100507	198157-003	Phenanthrene-d10	142038	35118-140472

See Table 2 of this report for a summary of qualifications due to internal standard area count failures.

K. Compound Identification and Quantitation

All samples analyzed for PAHs in laboratory sample delivery groups 197831, 197863, 197977, 198002 and 198300 received full (Level IV) data validation. This included re-calculation of surrogate values, GC/MS tunes, initial and continuing calibrations and internal standard areas; in addition to re-calculation of all reported results for PAHs in these samples. The reported results for PAHs in these samples were verified as correctly reported by the laboratory.

III. Total Petroleum Hydrocarbons (TPH) – Diesel/Fuel Oil Range (8015B)

Overall, the data are usable as reported with any added qualifiers. Qualification was required for the reason noted in Section F.

A. Reporting Limits

The laboratory reporting limits for TPH-diesel and TPH-fuel oil in soil matrix samples met the project-required reporting limits, with the following exceptions:

1. Samples MT-16SB01(1.5) (197916-009), BR10-1SB01(2.0) (197939-011), BR6-1SB03(1.5) (197978-006), MT-13SB01(2.0) (198002-002) and MT-2SB07(1.0) (198445-005) were analyzed at five-fold dilutions; samples BR10-1SB02(3.0) (197939-012), MT-9SB02(2.0) (197998-003) and MT-2SB03(1.0) (198445-002) were analyzed at ten-fold dilutions; and samples MT-13SB02(2.0) (197916-008) and MT-3SB08(2.0) (197978-008) were analyzed at twenty-fold dilutions

due to the dark, viscous nature of the sample extracts. The reporting limits were raised by the dilution factors.

2. Sample BR1-2SB03(6.5) (197830-005) was analyzed at a ten-fold dilution due to the presence of non-target compounds. The reporting limits were raised by the dilution factor.
3. It should be noted that the reporting limits for all soils were raised due to dry weight correction.

B. Holding Times

Technical holding time criteria were met for all project samples.

C. Surrogate Recoveries

Surrogate spike recoveries met QC acceptance criteria for all project samples, with the following exceptions:

1. Samples with non-detected results and high-failing surrogate recoveries did not require qualification, and were not noted in this report.
2. Samples which required dilutions of five-fold or greater and had failing surrogate recoveries did not require qualification, and were not noted in this report.

D. Blanks

Target analytes were not observed in any laboratory method blanks associated with the project samples.

E. Laboratory Control Samples

All QC criteria were met for the laboratory control samples associated with the project samples.

F. Matrix Spike/Matrix Spike Duplicate

All QC criteria were met for the matrix spikes and matrix spike duplicates associated with the project samples, with the following exceptions:

1. The percent recovery for TPH-diesel was outside the 65%-135% project acceptance criteria in QC sample BR5-2SB07(1.5) (197830-021) MS at 148%. The detected result for TPH-diesel in the parent sample was qualified as estimated with a high bias (J+). (QC Batch 130180)
2. The relative percent difference (RPD) for TPH-diesel was outside the 35% project acceptance criteria in QC samples BR5-3SB04(2.5) (197862-013) MS/MSD at 45%. The non-detect result for TPH-diesel in the parent sample was qualified as estimated (UJ). (QC Batch 130218)
3. The percent recovery for TPH-diesel was outside the 65%-135% project acceptance criteria in QC sample 198011-001 MS. The parent sample was from a site unrelated to the project site, and qualification of project samples was not required. (QC Batch 130254)
4. The percent recovery for TPH-diesel was outside the 65%-135% project acceptance criteria in QC sample 198322-002 MS. The parent sample was from a site unrelated to the project site, and qualification of project samples was not required. (QC Batch 130661)

5. The percent recovery for TPH-diesel was outside the 65%-135% project acceptance criteria in QC sample MT-2SB07(1.0) (198445-005) MSD.

The sample was diluted five-fold for TPH-diesel analysis and qualification was not required. (QC Batch 131063)

See Table 2 of this report for a summary of qualifications due to matrix spike percent recovery and relative percent difference failures.

G. Initial Calibration

Initial calibration criteria were met for all calibration standards associated with the project samples.

H. Continuing Calibration

Continuing calibration criteria were met for all continuing calibration standards associated with the project samples.

I. Compound Identification and Quantitation

All samples analyzed for TPH-diesel and TPH-fuel oil in laboratory sample delivery groups 197831, 197863, 197937, 197977, 198002 and 198300 received full (Level IV) data validation. This included re-calculation of surrogate values and initial and continuing calibrations; in addition to re-calculation of all reported results for TPH-diesel and TPH-fuel oil in these samples. The reported results for TPH-diesel and TPH-fuel oil in these samples were verified as correctly reported by the laboratory.

FIELD DUPLICATES

Field duplicate precision was evaluated by calculating the relative percent difference (RPD) between detected results in the original sample and its associated duplicate. The control limit used for field duplicates was an RPD less than or equal to 50 percent, or the absolute difference of the two results must be less than twice the reporting limit for those analytes that were at or near the detection limit. Fourteen samples were collected in duplicate for the FDS-FSP sampling event.

Project Sample Primary ID	Laboratory Sample ID	Project Sample Duplicate ID	Laboratory Sample ID
BR1-2SB04(6.5)	197830-007	DUP-3-092407	197830-011
BR1-1SB01(2.0)	197830-015	DUP-1-092407	197830-012
BR5-2SB06(2.5)	197831-003	DUP2-092407	197831-004
BR3-1SB02(10.0)	197862-005	DUP-2-092507	197862-006
BR6-1SB01(1.5)	197862-020	DUP-1-092507	197862-021
MT-17SB02(2.0)	197939-014	DUP-1-092707	197939-015
BR7-1SB05(1.5)	197939-024	DUP-2-092707	197937-002
MT-3SB04(2.0)	197978-003	DUP-1-092807	197978-005
MT-15SB02(3.5)	197978-010	DUP-3-092807	197978-011
BR7-2SB02(1.5)	197978-018	DUP-2-092807	197978-019
BR10-1SB06(2.0)	197998-007	DUP-3-100107	197998-006
MT-9SB03(2.0)	198002-001	DUP-1-100107	197998-001
MT-13SB01(2.0)	198002-002	DUP-2-100107	197998-004
MT-11SB07(2.0)	198157-005	DUP-1-100507	198157-003

The attached Table 3 summarizes the field duplicate sample results. The detected results of the original samples and the associated duplicate samples were compared and the calculated RPDs reported. All RPDs met the 50 percent precision control limit requirement, with the following exceptions:

1. In field duplicates BR1-1SB01(2.0) and DUP-1-092407, the relative percent difference (RPD) between the detected results failed the 50% acceptance criteria for TPH-fuel oil at 59%.
2. In field duplicates BR5-2SB06(2.5) and DUP2-092407, the RPD between the detected results failed the 50% acceptance criteria for TPH-fuel oil at 52%.
3. In field duplicates MT-17SB02(2.0) and DUP-1-092707, the RPD between the detected results failed the 50% acceptance criteria for TPH-fuel oil at -137%.
4. In field duplicates MT-3SB04(2.0) and DUP-1-092807, the RPD between the detected results failed the 50% acceptance criteria for benzo(b)fluoranthene at -73%.

The analysis of field duplicate samples is a measure of both field and analytical precision. The imprecision in the results in the field duplicate pairs listed above may be due to the sample matrix, sampling or laboratory technique, or method defects. With the exceptions noted above, the results between the field duplicate pairs matched well. Since the effect on the quality of the data is not known, data is not qualified for field duplicate failure.

SUMMARY

The attached Table 1 lists the samples and analyses included in the data validation effort. This table also designates which samples/analyses received Level IV data validation. The attached Table 2 summarizes the data qualifications required for the project samples for each test method included in the data packages.

USABILITY

The quality control criteria were reviewed, and other than those discussed above, all criteria were met and the data are considered acceptable. Estimated sample results (J/UJ) are usable only for limited purposes. Based upon the cursory and full data validation, all other results are considered valid and usable for all purposes.

VALIDATION QUALIFIERS IDENTIFICATION

The definitions of the following qualifiers are prepared according to the document, "USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review," October, 1999.

- U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample. *A minus sign (-) indicates the numerical value has a low bias. A plus sign (+) indicates the numerical value has a high bias.*

- N The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."
- NJ The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.
- UJ The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

Table 1
Sample Summary
Fuel Distribution System Field Sampling Event
The Presidio of San Francisco, CA

Site Sample ID	Laboratory Sample ID	Date Sampled	Analyses	Sample Type
BR1-2SB01(3.0)	197830-001	24-Sep-07	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil
BR1-2SB01(6.5)	197830-002	24-Sep-07	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil
BR1-2SB02(3.0)	197830-003	24-Sep-07	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil
BR1-2SB02(6.5)	197830-004	24-Sep-07	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil
BR1-2SB03(6.5)	197830-005	24-Sep-07	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil
BR1-2SB04(3.0)	197830-006	24-Sep-07	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil
BR1-2SB04(6.5)	197830-007	24-Sep-07	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil (1)
BR1-2SB05(9.0)	197830-009	24-Sep-07	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil
BR1-2SB05(6.5)	197830-010	24-Sep-07	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil
DUP-3-092407	197830-011	24-Sep-07	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	FD (1)
DUP-1-092407	197830-012	24-Sep-07	TPH-Diesel/FO (8015B)	FD (2)
MT-4SB03(2.0)	197830-013	24-Sep-07	TPH-Diesel/FO (8015B)	Soil
BR5-2SB01(2.5)	197830-014	24-Sep-07	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil
BR1-1SB01(2.0)	197830-015	24-Sep-07	TPH-Diesel/FO (8015B)	Soil (2)
BR1-1SB02(4.5)	197830-016	24-Sep-07	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil
MT-4SB04(2.0)	197830-017	24-Sep-07	TPH-Diesel/FO (8015B)	Soil
MT-5SB01(4.5)	197830-018	24-Sep-07	PAHs (8270-SIM)	Soil
BR5-2SB05(2.5)	197830-019	24-Sep-07	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil
MT-4SB05(2.0)	197830-020	24-Sep-07	TPH-Diesel/FO (8015B)	Soil
BR5-2SB07(1.5)	197830-021	24-Sep-07	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil
BR12-1SB01(2.0)	197830-022	24-Sep-07	TPH-Diesel/FO (8015B)	Soil
BR12-1SB03(5.5)	197830-023	24-Sep-07	TPH-Diesel/FO (8015B)	Soil
MT-4SB06(2.0)	197830-024	24-Sep-07	TPH-Diesel/FO (8015B)	Soil
BR1-2SB06(6.5)	197831-001	24-Sep-07	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil
MT-4SB02(2)	197831-002	24-Sep-07	TPH-Diesel/FO (8015B)	Soil
BR5-2SB06(2.5)	197831-003	24-Sep-07	TPH-Diesel/FO (8015B)	Soil (3)

Table 1
Sample Summary
Fuel Distribution System Field Sampling Event
The Presidio of San Francisco, CA

Site Sample ID	Laboratory Sample ID	Date Sampled	Analyses	Sample Type
DUP2-092407	197831-004	24-Sep-07	TPH-Diesel/FO (8015B)	FD (3)
BR3-1SB01(3.0)	197862-001	25-Sep-07	PAHs (8270-SIM)	Soil
BR3-1SB01(6.0)	197862-002	25-Sep-07	PAHs (8270-SIM)	Soil
BR3-1SB02(5.0)	197862-004	25-Sep-07	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil
BR3-1SB02(10.0)	197862-005	25-Sep-07	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil (4)
DUP-2-092507	197862-006	25-Sep-07	PAHs (8270-SIM)	FD (4)
BR3-1SB03(5.5)	197862-008	25-Sep-07	PAHs (8270-SIM)	Soil
BR3-1SB03(10.0)	197862-009	25-Sep-07	PAHs (8270-SIM)	Soil
BR6-1SB02(1.5)	197862-011	25-Sep-07	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil
BR5-3SB03(2.5)	197862-012	25-Sep-07	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil
BR5-3SB04(2.5)	197862-013	25-Sep-07	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil
MT-12SB03(2.0)	197862-014	25-Sep-07	PAHs (8270-SIM)	Soil
MT-15SB01(2.5)	197862-015	25-Sep-07	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil
BR5-3SB01(2.5)	197862-016	25-Sep-07	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil
BR5-3SB02(2.5)	197862-017	25-Sep-07	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil
MT-4SB01(2.0)	197862-018	25-Sep-07	TPH-Diesel/FO (8015B)	Soil
MT-5SB02(9.5)	197862-019	25-Sep-07	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil
BR6-1SB01(1.5)	197862-020	25-Sep-07	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil (5)
DUP-1-092507	197862-021	25-Sep-07	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	FD (5)
MT-12SB04(2.0)	197863-001	25-Sep-07	PAHs (8270-SIM)	Soil
MT-3SB06(12.5)	197863-002	25-Sep-07	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil
BR9-1SB01(5.5)	197916-001	26-Sep-07	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil
BR10-1SB03(3.0)	197916-002	26-Sep-07	TPH-Diesel/FO (8015B)	Soil
BR9-1SB02(5.0)	197916-003	26-Sep-07	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil
BR10-3SB02(1.5)	197916-004	26-Sep-07	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil
BR9-1SB03(4.5)	197916-005	26-Sep-07	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil

Table 1
Sample Summary
Fuel Distribution System Field Sampling Event
The Presidio of San Francisco, CA

Site Sample ID	Laboratory Sample ID	Date Sampled	Analyses	Sample Type
BR13-1SB02(2.0)	197916-006	26-Sep-07	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil
MT-16SB03(1.5)	197916-007	26-Sep-07	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil
MT-13SB02(2.0)	197916-008	26-Sep-07	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil
MT-16SB01(1.5)	197916-009	26-Sep-07	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil
MT-16SB02(1.5)	197916-010	26-Sep-07	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil
BR3-2SB01(9.5)	197916-011	26-Sep-07	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil
BR6-3SB01(10.0)	197916-014	26-Sep-07	TPH-Diesel/FO (8015B)	Soil
BR6-3SB02(2.5)	197916-017	26-Sep-07	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil
BR6-3SB03(2.5)	197916-018	26-Sep-07	TPH-Diesel/FO (8015B)	Soil
MT-17SB07(2.0)	197937-001	27-Sep-07	TPH-Diesel/FO (8015B)	Soil
DUP-2-092707	197937-002	27-Sep-07	TPH-Diesel/FO (8015B)	FD (6)*
BR6-3SB04(12.0)	197937-003	26-Sep-07	TPH-Diesel/FO (8015B)	Soil
BR6-3SB04(17.0)	197937-004	26-Sep-07	TPH-Diesel/FO (8015B)	Soil
MT-2SB01(2.0)	197939-001	27-Sep-07	PAHs (8270-SIM)	Soil
MT-2SB02(2.0)	197939-002	27-Sep-07	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil
MT-2SB04(2.0)	197939-003	27-Sep-07	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil
MT-2SB05(2.0)	197939-004	27-Sep-07	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil
MT-2SB06(2.0)	197939-005	27-Sep-07	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil
BR1-1SB03(2.0)	197939-006	27-Sep-07	TPH-Diesel/FO (8015B)	Soil
BR10-1SB01(2.0)	197939-011	27-Sep-07	BETX (8260B), PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil
BR10-1SB02(3.0)	197939-012	27-Sep-07	TPH-Diesel/FO (8015B)	Soil
MT-17SB01(2.0)	197939-013	27-Sep-07	TPH-Diesel/FO (8015B)	Soil
MT-17SB02(2.0)	197939-014	27-Sep-07	TPH-Diesel/FO (8015B)	Soil (7)
DUP-1-092707	197939-015	27-Sep-07	TPH-Diesel/FO (8015B)	FD (7)
MT-17SB03(3.5)	197939-017	27-Sep-07	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil
MT-17SB04(1.5)	197939-018	27-Sep-07	TPH-Diesel/FO (8015B)	Soil

Table 1
Sample Summary
Fuel Distribution System Field Sampling Event
The Presidio of San Francisco, CA

Site Sample ID	Laboratory Sample ID	Date Sampled	Analyses	Sample Type
MT-17SB05(2.0)	197939-019	27-Sep-07	TPH-Diesel/FO (8015B)	Soil
MT-17SB06(2.0)	197939-020	27-Sep-07	TPH-Diesel/FO (8015B)	Soil
MT-17SB08(2.0)	197939-021	27-Sep-07	TPH-Diesel/FO (8015B)	Soil
MT-17SB09(2.0)	197939-022	27-Sep-07	TPH-Diesel/FO (8015B)	Soil
MT-17SB10(2.0)	197939-023	27-Sep-07	TPH-Diesel/FO (8015B)	Soil
MT-15SB03(3.5)	197977-001	28-Sep-07	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil
MT-3SB09(2.0)	197977-002	28-Sep-07	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil
MT-3SB01(2.5)	197978-001	28-Sep-07	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil
MT-3SB05(4.0)	197978-002	28-Sep-07	PAHs (8270-SIM)	Soil
MT-3SB04(2.0)	197978-003	28-Sep-07	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil (8)
MT-3SB03(2.0)	197978-004	28-Sep-07	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil
DUP-1-092807	197978-005	28-Sep-07	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	FD (8)
BR6-1SB03(1.5)	197978-006	28-Sep-07	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil
MT-3SB02(2.5)	197978-007	28-Sep-07	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil
MT-3SB08(2.0)	197978-008	28-Sep-07	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil
MT-3SB07(2.0)	197978-009	28-Sep-07	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil
MT-15SB02(3.5)	197978-010	28-Sep-07	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil (9)
DUP-3-092807	197978-011	28-Sep-07	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	FD (9)
BR7-1SB01(1.5)	197978-013	28-Sep-07	PAHs (8270-SIM)	Soil
BR7-1SB02(1.5)	197978-014	28-Sep-07	PAHs (8270-SIM)	Soil
BR7-2SB02(1.5)	197978-018	28-Sep-07	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil (10)
DUP-2-092807	197978-019	28-Sep-07	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	FD (10)
BR5-2SB03(2.5)	197978-020	28-Sep-07	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil
BR5-2SB04(3.0)	197978-022	28-Sep-07	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil
BR5-2SB02(1.0)	197978-023	28-Sep-07	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil
BR5-2SB08(1.5)	197978-024	28-Sep-07	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil

Table 1
Sample Summary
Fuel Distribution System Field Sampling Event
The Presidio of San Francisco, CA

Site Sample ID	Laboratory Sample ID	Date Sampled	Analyses	Sample Type
BR13-1SB01(2.0)	197978-025	28-Sep-07	TPH-Diesel/FO (8015B)	Soil
DUP-1-100107	197998-001	1-Oct-07	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	FD (11)
MT-9SB01(2.0)	197998-002	1-Oct-07	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil
MT-9SB02(2.0)	197998-003	1-Oct-07	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil
DUP-2-100107	197998-004	1-Oct-07	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	FD (12)
BR10-1SB07(2.0)	197998-005	1-Oct-07	BETX (8260B), PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil
DUP-3-100107	197998-006	1-Oct-07	BETX (8260B), PAHs (8270-SIM), TPH-Diesel/FO (8015B)	FD (13)
BR10-1SB06(2.0)	197998-007	1-Oct-07	BETX (8260B), PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil (13)
MT-9SB03(2.0)	198002-001	1-Oct-07	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil (11)
MT-13SB01(2.0)	198002-002	1-Oct-07	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil (12)
BR10-1SB05(2.0)	198002-003	1-Oct-07	BETX (8260B), PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil
BR13-1SB03(5.0)	198002-004	1-Oct-07	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil
MT-11SB06(2.0)	198157-001	5-Oct-07	PAHs (8270-SIM)	Soil
MT-11SB03(2.0)	198157-002	5-Oct-07	PAHs (8270-SIM)	Soil
DUP-1-100507	198157-003	5-Oct-07	PAHs (8270-SIM)	FD (14)
MT-11SB04(2.0)	198157-004	5-Oct-07	PAHs (8270-SIM)	Soil
MT-11SB07(2.0)	198157-005	5-Oct-07	PAHs (8270-SIM)	Soil (14)
MT-11SB05(2.0)	198157-006	5-Oct-07	PAHs (8270-SIM)	Soil
MT-11SB02(2.0)	198157-007	5-Oct-07	PAHs (8270-SIM)	Soil
MT-11SB06(1.5)	198157-008	5-Oct-07	PAHs (8270-SIM)	Soil
MT-11SB01(2.0)	198157-009	5-Oct-07	PAHs (8270-SIM)	Soil
MT-11SB08(2.0)	198157-010	5-Oct-07	PAHs (8270-SIM)	Soil
MT-12SB01(2.0)	198157-011	5-Oct-07	PAHs (8270-SIM)	Soil
MT-10SB01(0.5)	198157-012	5-Oct-07	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil
MT-12SB02(2.0)	198300-001	9-Oct-07	PAHs (8270-SIM)	Soil
BR2-2SB01(3.0)	198300-002	9-Oct-07	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil

Table 1
Sample Summary
Fuel Distribution System Field Sampling Event
The Presidio of San Francisco, CA

Site Sample ID	Laboratory Sample ID	Date Sampled	Analyses	Sample Type
BR10-2SB01(3.0)	198301-001	9-Oct-07	TPH-Diesel/FO (8015B)	Soil
BR7-2SB01(1.5)	198301-002	9-Oct-07	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil
BR2-2SB02(2.0)	198301-003	9-Oct-07	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil
MT-2SB03(0.5)	198445-001	15-Oct-07	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil
MT-2SB03(1.0)	198445-002	15-Oct-07	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil
MT-2SB07(1.0)	198445-005	15-Oct-07	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil
MT-2SB08(1.0)	198445-006	15-Oct-07	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil

* The matching field sample to this field duplicate was put on HOLD status; no data was reported for sample BR7-1SB05 (197939-024).

PAHs: Polynuclear Aromatic Hydrocarbons

TPH: Total Petroleum Hydrocarbons

FO: Fuel Oil

BTEX: Benzene, Toluene, Ethylbenzene, Xylenes

FD: Field duplicate of previous numbered sample, (1), (2), etc.

BOLD: Bold typeface indicates samples/analyses that received full (Level IV) data validation

Table 2
Qualified Data Summary
Fuel Distribution System Field Sampling Event
The Presidio of San Francisco, CA

Sample ID	Laboratory ID	Analysis Method	Compound	Qualifier	Reason
BR5-2SB07(1.5)	197830-021	8015B	Diesel C12-C24	J+	MS/MSD percent recovery failure
BR3-1SB02(5.0)	197862-004	8270-SIM	Benzo(b)fluoranthene	J+	Continuing calibration verification percent difference failure
BR5-3SB04(2.5)	197862-013	8015B	Diesel C12-C24	UJ	MS/MSD relative percent difference failure
MT-12SB03(2.0)	197862-014	8270-SIM	Benzo(b)fluoranthene	J+	Continuing calibration verification percent difference failure
BR5-3SB02(2.5)	197862-017	8270-SIM	Benzo(b)fluoranthene	J+	Continuing calibration verification percent difference failure
BR9-1SB03(4.5)	197916-005	8270-SIM	Benzo(g,h,i)perylene	J+	Continuing calibration verification percent difference failure
MT-16SB03(1.5)	197916-007	8270-SIM	Benzo(g,h,i)perylene	J+	Continuing calibration verification percent difference failure
MT-13SB02(2.0)	197916-008	8270-SIM	Benzo(b)fluoranthene	J	Internal standard area count failure
MT-13SB02(2.0)	197916-008	8270-SIM	Benzo(k)fluoranthene	UJ	Internal standard area count failure
MT-13SB02(2.0)	197916-008	8270-SIM	Benzo(a)pyrene	UJ	Internal standard area count failure
MT-13SB02(2.0)	197916-008	8270-SIM	Indeno(1,2,3-cd)pyrene	UJ	Internal standard area count failure
MT-13SB02(2.0)	197916-008	8270-SIM	Dibenz(a,h)anthracene	UJ	Internal standard area count failure
MT-13SB02(2.0)	197916-008	8270-SIM	Benzo(g,h,i)perylene	J	Internal standard area count failure
MT-16SB01(1.5)	197916-009	8270-SIM	Benzo(b)fluoranthene	J	Internal standard area count failure
MT-16SB01(1.5)	197916-009	8270-SIM	Benzo(k)fluoranthene	J	Internal standard area count failure
MT-16SB01(1.5)	197916-009	8270-SIM	Benzo(a)pyrene	J	Internal standard area count failure
MT-16SB01(1.5)	197916-009	8270-SIM	Indeno(1,2,3-cd)pyrene	UJ	Internal standard area count failure
MT-16SB01(1.5)	197916-009	8270-SIM	Dibenz(a,h)anthracene	UJ	Internal standard area count failure
MT-16SB01(1.5)	197916-009	8270-SIM	Benzo(g,h,i)perylene	J	Internal standard area count failure
MT-16SB02(1.5)	197916-010	8270-SIM	Benzo(b)fluoranthene	J	Internal standard area count failure
MT-16SB02(1.5)	197916-010	8270-SIM	Benzo(k)fluoranthene	J	Internal standard area count failure
MT-16SB02(1.5)	197916-010	8270-SIM	Benzo(a)pyrene	J	Internal standard area count failure
MT-16SB02(1.5)	197916-010	8270-SIM	Indeno(1,2,3-cd)pyrene	J	Internal standard area count failure
MT-16SB02(1.5)	197916-010	8270-SIM	Dibenz(a,h)anthracene	J	Internal standard area count failure
MT-16SB02(1.5)	197916-010	8270-SIM	Benzo(g,h,i)perylene	J	Internal standard area count failure
MT-2SB04(2.0)	197939-003	8270-SIM	Benzo(g,h,i)perylene	J+	Continuing calibration verification percent difference failure
BR10-1SB01(2.0)	197939-011	8270-SIM	Indeno(123cd)pyrene	J-	Continuing calibration verification percent difference failure
BR10-1SB01(2.0)	197939-011	8270-SIM	Dibenz(a,h)anthracene	UJ	Continuing calibration verification percent difference failure
DUP-1-100507	198157-003	8270-SIM	Pyrene	J	Internal standard area count failure
MT-11SB06(1.5)	198157-008	8270-SIM	Benzo(g,h,i)perylene	J+	Continuing calibration verification percent difference failure

Table 2
Qualified Data Summary
Fuel Distribution System Field Sampling Event
The Presidio of San Francisco, CA

Sample ID	Laboratory ID	Analysis Method	Compound	Qualifier	Reason
BR2-2SB01(3.0)	198300-002	8270-SIM	Indeno(1,2,3-cd)pyrene	J-	Continuing calibration verification percent difference failure
BR2-2SB01(3.0)	198300-002	8270-SIM	Dibenz(a,h)anthracene	J-	Continuing calibration verification percent difference failure
BR2-2SB01(3.0)	198300-002	8270-SIM	Benzo(g,h,i)perylene	J-	Continuing calibration verification percent difference failure
BR7-2SB01(1.5)	198301-002	8270-SIM	Benzo(b)fluoranthene	J+	Continuing calibration verification percent difference failure
BR2-2SB02(2.0)	198301-003	8270-SIM	Benzo(b)fluoranthene	J+	Continuing calibration verification percent difference failure

CCV: Continuing calibration verification

%D: Percent difference

%R: Percent recovery

MS/MSD: Matrix spike/matrix spike duplicate

LCS: Laboratory control sample

RRF: Relative response factor

Table 3
Summary of Field Duplicates
Fuel Distribution System Field Sampling Event
The Presidio of San Francisco, CA

Original Sample ID	Laboratory ID	Matrix	Compound	Original Results*	Duplicate Sample ID	Laboratory ID	Duplicate Results*	RPD
BR1-2SB04(6.5)	197830-007	Soil	All PAHs	ND	DUP-3-092407	197830-011	ND	NA
BR1-2SB04(6.5)	197830-007	Soil	Diesel C12-C24	ND	DUP-3-092407	197830-011	ND	NA
BR1-2SB04(6.5)	197830-007	Soil	Fuel Oil C24-C36	ND	DUP-3-092407	197830-011	ND	NA
BR1-1SB01(2.0)	197830-015	Soil	Diesel C12-C24	29	DUP-1-092407	197830-012	25	15%
BR1-1SB01(2.0)	197830-015	Soil	Fuel Oil C24-C36	220	DUP-1-092407	197830-012	120	59%
BR5-2SB06(2.5)	197831-003	Soil	Diesel C12-C24	780	DUP2-092407	197831-004	520	40%
BR5-2SB06(2.5)	197831-003	Soil	Fuel Oil C24-C36	580	DUP2-092407	197831-004	340	52%
BR3-1SB02(10.0)	197862-005	Soil	All PAHs	ND	DUP-2-092507	197862-006	ND	NA
BR6-1SB01(1.5)	197862-020	Soil	All PAHs	ND	DUP-1-092507	197862-021	ND	NA
BR6-1SB01(1.5)	197862-020	Soil	Diesel C12-C24	ND	DUP-1-092507	197862-021	ND	NA
BR6-1SB01(1.5)	197862-020	Soil	Fuel Oil C24-C36	ND	DUP-1-092507	197862-021	ND	NA
MT-17SB02(2.0)	197939-014	Soil	Diesel C12-C24	ND	DUP-1-092707	197939-015	1.9	NC
MT-17SB02(2.0)	197939-014	Soil	Fuel Oil C24-C36	6	DUP-1-092707	197939-015	32	-137%
BR7-1SB05(1.5)	197939-024	Soil	Diesel C12-C24	N/A	DUP-2-092707	197937-002	ND	NA
BR7-1SB05(1.5)	197939-024	Soil	Fuel Oil C24-C36	N/A	DUP-2-092707	197937-002	ND	NA
MT-3SB04(2.0)	197978-003	Soil	Phenanthrene	1.8	DUP-1-092807	197978-005	5.2	NC
MT-3SB04(2.0)	197978-003	Soil	Fluoranthene	6.1	DUP-1-092807	197978-005	14	NC
MT-3SB04(2.0)	197978-003	Soil	Pyrene	6.7	DUP-1-092807	197978-005	14	NC
MT-3SB04(2.0)	197978-003	Soil	Benzo(a)anthracene	5.6	DUP-1-092807	197978-005	11	NC
MT-3SB04(2.0)	197978-003	Soil	Chrysene	7.1	DUP-1-092807	197978-005	12	NC
MT-3SB04(2.0)	197978-003	Soil	Benzo(b)fluoranthene	9.3	DUP-1-092807	197978-005	20	-73%
MT-3SB04(2.0)	197978-003	Soil	Benzo(k)fluoranthene	3.1	DUP-1-092807	197978-005	5.7	NC
MT-3SB04(2.0)	197978-003	Soil	Benzo(a)pyrene	5.9	DUP-1-092807	197978-005	11	NC
MT-3SB04(2.0)	197978-003	Soil	Indeno(1,2,3-cd)pyrene	2.9	DUP-1-092807	197978-005	7	NC
MT-3SB04(2.0)	197978-003	Soil	Dibenz(a,h)anthracene	1.1	DUP-1-092807	197978-005	2.4	NC
MT-3SB04(2.0)	197978-003	Soil	Benzo(g,h,i)perylene	3.4	DUP-1-092807	197978-005	8.2	NC
MT-3SB04(2.0)	197978-003	Soil	All other PAHs	ND	DUP-1-092807	197978-005	ND	NA
MT-3SB04(2.0)	197978-003	Soil	Diesel C12-C24	ND	DUP-1-092807	197978-005	ND	NA
MT-3SB04(2.0)	197978-003	Soil	Fuel Oil C24-C36	6.7	DUP-1-092807	197978-005	9.5	-35%

Table 3
Summary of Field Duplicates
Fuel Distribution System Field Sampling Event
The Presidio of San Francisco, CA

Original Sample ID	Laboratory ID	Matrix	Compound	Original Results*	Duplicate Sample ID	Laboratory ID	Duplicate Results*	RPD
MT-15SB02(3.5)	197978-010	Soil	Pyrene	110	DUP-3-092807	197978-011	ND	NC
MT-15SB02(3.5)	197978-010	Soil	Benzo(a)anthracene	180	DUP-3-092807	197978-011	ND	NC
MT-15SB02(3.5)	197978-010	Soil	Chrysene	180	DUP-3-092807	197978-011	ND	NC
MT-15SB02(3.5)	197978-010	Soil	Benzo(b)fluoranthene	340	DUP-3-092807	197978-011	ND	NC
MT-15SB02(3.5)	197978-010	Soil	Benzo(a)pyrene	300	DUP-3-092807	197978-011	ND	NC
MT-15SB02(3.5)	197978-010	Soil	Indeno(1,2,3-cd)pyrene	220	DUP-3-092807	197978-011	ND	NC
MT-15SB02(3.5)	197978-010	Soil	Benzo(g,h,i)perylene	410	DUP-3-092807	197978-011	ND	NC
MT-15SB02(3.5)	197978-010	Soil	All other PAHs	ND	DUP-3-092807	197978-011	ND	NA
MT-15SB02(3.5)	197978-010	Soil	Diesel C12-C24	1700	DUP-3-092807	197978-011	1300	27%
MT-15SB02(3.5)	197978-010	Soil	Fuel Oil C24-C36	5300	DUP-3-092807	197978-011	4000	28%
BR7-2SB02(1.5)	197978-018	Soil	All PAHs	ND	DUP-2-092807	197978-019	ND	NA
BR7-2SB02(1.5)	197978-018	Soil	Diesel C12-C24	ND	DUP-2-092807	197978-019	ND	NA
BR7-2SB02(1.5)	197978-018	Soil	Fuel Oil C24-C36	ND	DUP-2-092807	197978-019	ND	NA
BR10-1SB06(2.0)	197998-007	Soil	Naphthalene	8.9	DUP-3-100107	197998-006	4.7	NC
BR10-1SB06(2.0)	197998-007	Soil	2-Methylnaphthalene	14	DUP-3-100107	197998-006	32	NC
BR10-1SB06(2.0)	197998-007	Soil	Fluorene	ND	DUP-3-100107	197998-006	5.1	NC
BR10-1SB06(2.0)	197998-007	Soil	Phenanthrene	49	DUP-3-100107	197998-006	72	-38%
BR10-1SB06(2.0)	197998-007	Soil	Anthracene	ND	DUP-3-100107	197998-006	9.7	NC
BR10-1SB06(2.0)	197998-007	Soil	Fluoranthene	100	DUP-3-100107	197998-006	84	17%
BR10-1SB06(2.0)	197998-007	Soil	Pyrene	67	DUP-3-100107	197998-006	67	0%
BR10-1SB06(2.0)	197998-007	Soil	Benzo(a)anthracene	31	DUP-3-100107	197998-006	23	30%
BR10-1SB06(2.0)	197998-007	Soil	Chrysene	49	DUP-3-100107	197998-006	29	NC
BR10-1SB06(2.0)	197998-007	Soil	Benzo(b)fluoranthene	46	DUP-3-100107	197998-006	41	11%
BR10-1SB06(2.0)	197998-007	Soil	Benzo(k)fluoranthene	15	DUP-3-100107	197998-006	11	31%
BR10-1SB06(2.0)	197998-007	Soil	Benzo(a)pyrene	50	DUP-3-100107	197998-006	11	NC
BR10-1SB06(2.0)	197998-007	Soil	Indeno(1,2,3-cd)pyrene	15	DUP-3-100107	197998-006	8.3	NC
BR10-1SB06(2.0)	197998-007	Soil	Benzo(g,h,i)perylene	24	DUP-3-100107	197998-006	15	46%
BR10-1SB06(2.0)	197998-007	Soil	All other PAHs	ND	DUP-3-100107	197998-006	ND	NA
BR10-1SB06(2.0)	197998-007	Soil	Diesel C12-C24	44	DUP-3-100107	197998-006	46	-4.4%

Table 3
Summary of Field Duplicates
Fuel Distribution System Field Sampling Event
The Presidio of San Francisco, CA

Original Sample ID	Laboratory ID	Matrix	Compound	Original Results*	Duplicate Sample ID	Laboratory ID	Duplicate Results*	RPD
BR10-1SB06(2.0)	197998-007	Soil	Fuel Oil C24-C36	55	DUP-3-100107	197998-006	69	-23%
MT-9SB03(2.0)	198002-001	Soil	All PAHs	ND	DUP-1-100107	197998-001	ND	NA
MT-9SB03(2.0)	198002-001	Soil	Diesel C12-C24	3.5	DUP-1-100107	197998-001	1.9	NC
MT-9SB03(2.0)	198002-001	Soil	Fuel Oil C24-C36	6.8	DUP-1-100107	197998-001	ND	NC
MT-13SB01(2.0)	198002-002	Soil	Naphthalene	17	DUP-2-100107	197998-004	ND	NC
MT-13SB01(2.0)	198002-002	Soil	2-Methylnaphthalene	17	DUP-2-100107	197998-004	ND	NC
MT-13SB01(2.0)	198002-002	Soil	Acenaphthylene	25	DUP-2-100107	197998-004	ND	NC
MT-13SB01(2.0)	198002-002	Soil	Phenanthrene	66	DUP-2-100107	197998-004	76	-14%
MT-13SB01(2.0)	198002-002	Soil	Anthracene	26	DUP-2-100107	197998-004	ND	NC
MT-13SB01(2.0)	198002-002	Soil	Fluoranthene	110	DUP-2-100107	197998-004	86	24%
MT-13SB01(2.0)	198002-002	Soil	Pyrene	190	DUP-2-100107	197998-004	120	45%
MT-13SB01(2.0)	198002-002	Soil	Benzo(a)anthracene	110	DUP-2-100107	197998-004	58	NC
MT-13SB01(2.0)	198002-002	Soil	Chrysene	140	DUP-2-100107	197998-004	77	NC
MT-13SB01(2.0)	198002-002	Soil	Benzo(b)fluoranthene	160	DUP-2-100107	197998-004	150	6.5%
MT-13SB01(2.0)	198002-002	Soil	Benzo(k)fluoranthene	54	DUP-2-100107	197998-004	ND	NC
MT-13SB01(2.0)	198002-002	Soil	Benzo(a)pyrene	130	DUP-2-100107	197998-004	110	17%
MT-13SB01(2.0)	198002-002	Soil	Indeno(1,2,3-cd)pyrene	51	DUP-2-100107	197998-004	ND	NC
MT-13SB01(2.0)	198002-002	Soil	Dibenz(a,h)anthracene	18	DUP-2-100107	197998-004	ND	NC
MT-13SB01(2.0)	198002-002	Soil	Benzo(g,h,i)perylene	66	DUP-2-100107	197998-004	68	-3.0%
MT-13SB01(2.0)	198002-002	Soil	All other PAHs	ND	DUP-2-100107	197998-004	ND	NA
MT-13SB01(2.0)	198002-002	Soil	Diesel C12-C24	52	DUP-2-100107	197998-004	47	10%
MT-13SB01(2.0)	198002-002	Soil	Fuel Oil C24-C36	560	DUP-2-100107	197998-004	500	11%
MT-11SB07(2.0)	198157-005	Soil	Fluoranthene	ND	DUP-1-100507	198157-003	1.1	NC
MT-11SB07(2.0)	198157-005	Soil	Pyrene	ND	DUP-1-100507	198157-003	0.5	NC
MT-11SB07(2.0)	198157-005	Soil	Benzo(b)fluoranthene	ND	DUP-1-100507	198157-003	0.87	NC
MT-11SB07(2.0)	198157-005	Soil	Benzo(g,h,i)perylene	0.55	DUP-1-100507	198157-003	0.89	-47%
MT-11SB07(2.0)	198157-005	Soil	All other PAHs	ND	DUP-1-100507	198157-003	ND	NA

Table 3
Summary of Field Duplicates
Fuel Distribution System Field Sampling Event
The Presidio of San Francisco, CA

*Units for TPH analyses are mg/kg; units for all other organic analyses are ug/kg.

RL: Reporting limit

PAHs: Polynuclear Aromatic Hydrocarbons

ND: Not detected

NC: Not calculated. The absolute difference between the sample result and the duplicate sample result is less than the reporting limit.

N/A: Not analyzed

NA: Not applicable. Calculation of the relative percent difference between the sample result and the duplicate sample result is not applicable.

DEC 10 2008

ERLER & KALINOWSKI, INC.

TO: John DeWitt, Erler & Kalinowski, Inc.

December 9, 2008

FROM: Donna Breaux, DataVal, Inc.

Erler & Kalinowski Project No. A70004.16

DB 12/9/08

**DATA VALIDATION SUMMARY REPORT FOR THE FUEL DISTRIBUTION SYSTEM
SAMPLING EVENT, THE PRESIDIO OF SAN FRANCISCO, CA****LABORATORY:** Curtis & Tompkins, Ltd., Berkeley, CA**SAMPLING DATES:** August 11 through 13, 2008

Data validation of Levels III and IV laboratory data packages was performed according to the project-specific guidelines. These guidelines were outlined in the Presidio-wide Quality Assurance Project Plan, Sampling and Analysis Plan, April, 2001; and the U. S. Environmental Protection Agency Contract Laboratory Program National Functional Guidelines for Organic Data Review, October, 1999.

The data were reviewed for holding times, surrogate recoveries, laboratory blanks, laboratory control samples, matrix spikes and matrix spike duplicates, GC/MS tunes, initial calibrations, continuing calibration verification standards, internal standards, field QC samples and compound identification and quantitation.

The following paragraphs highlight the essential findings of the data validation effort:

I. Polynuclear Aromatic Hydrocarbons (PAHs) by GC/MS (8270-SIM)

Overall, the data are usable as reported. Qualification was not required.

A. Reporting Limits

The laboratory reporting limits for PAHs in soil matrix samples met the project-required reporting limits, with the following exceptions:

1. According to laboratory footnotes, several samples required dilutions prior to analysis due to the dark, viscous nature of the sample extracts. The reporting limits were raised by the dilution factors.
2. Samples DUP1-081308 (205289-002) and 337SB101[3.5] (205289-003) were analyzed at dilutions due to the presence of non-target compounds. The reporting limits were raised by the dilution factors.
3. Sample 337SB101[2.5] (205290-001) was analyzed at a dilution due to the dark, viscous nature of the sample extract as well as the presence of non-target compounds. The reporting limits were raised by the dilution factor.
4. The reporting limits for all soils were raised due to dry weight correction.

- B. Holding Times
Technical holding time criteria were met for all project samples.
- C. Surrogate Recoveries
Surrogate spike recoveries met QC acceptance criteria for all project samples. Samples which required dilutions of five-fold or greater with failing surrogate recoveries did not require qualification, and were not noted in this report.
- D. Blanks
Target analytes were not observed in any laboratory method blanks associated with the project samples.
- E. Laboratory Control Samples
All QC criteria were met for the laboratory control samples associated with the project samples.
- F. Matrix Spike/Matrix Spike Duplicate
All QC criteria were met for the matrix spikes and matrix spike duplicates associated with the project samples.
- G. GC/MS Tunes
All QC criteria were met for the GC/MS tunes associated with the project samples.
- H. Initial Calibration
Initial calibration criteria were met for all calibration standards associated with the project samples.
- I. Continuing Calibration
Continuing calibration criteria were met for all continuing calibration standards associated with the project samples.
- J. Internal Standards
Internal standard areas and retention times met QC acceptance criteria for all project samples.
- K. Compound Identification and Quantitation
All samples analyzed for PAHs in laboratory sample delivery groups 205216, 205243 and 205290 received full (Level IV) data validation. This included re-calculation of surrogate values, GC/MS tunes, initial and continuing calibrations and internal standard areas; in addition to re-calculation of all reported results for PAHs in these samples. The reported results for PAHs in these samples were verified as correctly reported by the laboratory.

II. Total Petroleum Hydrocarbons (TPH) – Diesel/Fuel Oil Range (8015B)

Overall, the data are usable as reported with any added qualifiers. Qualification was required for the reason noted in Section C.

A. Reporting Limits

The laboratory reporting limits for TPH-diesel and TPH-fuel oil in soil matrix samples met the project-required reporting limits. It should be noted that the reporting limits for all soils were raised due to dry weight correction.

B. Holding Times

Technical holding time criteria were met for all project samples.

C. Surrogate Recoveries

Surrogate spike recoveries met QC acceptance criteria for all project samples, with the following exceptions:

1. The percent recovery for surrogate hexacosane was outside the 65%-135% project acceptance criteria in project sample MT-14SB10[1.5] (205215-001) at 149%. The detected results for TPH-diesel and TPH-fuel oil in the sample were qualified as estimated with a high bias (J+).
2. Samples which required dilutions of five-fold or greater with failing surrogate recoveries did not require qualification, and were not noted in this report.

See Table 2 of this report for a summary of samples qualified for surrogate percent recovery failure.

D. Blanks

Target analytes were not observed in any laboratory method blanks associated with the project samples.

E. Laboratory Control Samples

All QC criteria were met for the laboratory control samples associated with the project samples.

F. Matrix Spike/Matrix Spike Duplicate

All QC criteria were met for the matrix spikes and matrix spike duplicates associated with the project samples, with the following exception:

1. The percent recoveries for TPH-diesel were outside the 65%-135% project acceptance criteria in QC samples 337SB101[2.5] (205290-001) MS/MSD. The amount of TPH-diesel present in the parent sample was greater than four times the amount spiked and qualification was not required. (QC Batch 141801)

G. Initial Calibration

Initial calibration criteria were met for all calibration standards associated with the project samples.

H. Continuing Calibration

Continuing calibration criteria were met for all continuing calibration standards associated with the project samples.

I. Compound Identification and Quantitation

All samples analyzed for TPH-diesel and TPH-fuel oil in laboratory sample delivery groups 205216, 205243 and 205290 received full (Level IV) data validation. This included re-calculation of surrogate values and initial and continuing calibrations; in addition to re-calculation of all reported results for TPH-diesel and TPH-fuel oil in these samples. The reported results for TPH-diesel and TPH-fuel oil in these samples were verified as correctly reported by the laboratory.

FIELD DUPLICATES

Field duplicate precision was evaluated by calculating the relative percent difference (RPD) between detected results in the original sample and its associated duplicate. The control limit used for field duplicates was an RPD less than or equal to 50 percent, or the absolute difference of the two results must be less than twice the reporting limit for those analytes that were at or near the detection limit. Three samples were collected in duplicate for the Fuel Distribution System sampling event.

Project Sample Primary ID	Laboratory Sample ID	Project Sample Duplicate ID	Laboratory Sample ID
MT-14SB01[2.5]	205216-001	DUP1-081108	205215-005
339SB104[11]	205244-008	DUP1-081208	205244-009
337SB101[2.5]	205290-001	DUP1-081308	205289-002

The attached Table 3 summarizes the field duplicate sample results. The detected results of the original samples and the associated duplicate samples were compared and the calculated RPDs reported. All RPDs met the 50 percent precision control limit requirement, with the following exception:

1. In field duplicates 337SB101[2.5] and DUP1-081308, the relative percent differences (RPDs) between the detected results failed the 50% acceptance criteria for fluoranthene (-96%) and chrysene (-79%).

The analysis of field duplicate samples is a measure of both field and analytical precision. The imprecision in the results in the field duplicate pair listed above may be due to the sample matrix, sample non-homogeneity, sampling or laboratory technique, or method defects. With the exception noted above, the results between the field duplicate pairs matched well. Since the effect on the quality of the data is not known, data is not qualified for field duplicate failure.

SUMMARY

The attached Table 1 lists the samples and analyses included in the data validation effort. This table also designates which samples/analyses received Level IV data validation. The attached Table 2 summarizes the data qualifications required for the project samples for each test method included in the data packages.

USABILITY

The quality control criteria were reviewed, and other than those discussed above, all criteria were met and the data are considered acceptable. Estimated sample results (J/UJ) are usable only for limited purposes. Based upon the cursory and full data validation, all other results are considered valid and usable for all purposes.

VALIDATION QUALIFIERS IDENTIFICATION

The definitions of the following qualifiers are prepared according to the document, "USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review," October, 1999.

- U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
- J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample. *A minus sign (-) indicates the numerical value has a low bias. A plus sign (+) indicates the numerical value has a high bias.*
- N The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."
- NJ The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.
- UJ The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
- R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.

Table 1
Sample Summary
Fuel Distribution System
The Presidio of San Francisco, CA

Site Sample ID	Laboratory Sample ID	Date Sampled	Analyses	Sample Type
MT-14SB10[1.5]	205215-001	11-Aug-08	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil
MT-14SB11[1.5]	205215-002	11-Aug-08	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil
MT-14SB04[1.5]	205215-003	11-Aug-08	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil
MT-14SB06[2.5]	205215-004	11-Aug-08	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil
DUP1-081108	205215-005	11-Aug-08	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	FD (1)
MT-14SB02[2]	205215-006	11-Aug-08	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil
MT-14SB03[2]	205215-008	11-Aug-08	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil
MT-14SB14[1.5]	205215-009	11-Aug-08	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil
MT-14SB13[1.5]	205215-010	11-Aug-08	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil
MT-14SB01[2.5]	205216-001	11-Aug-08	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil (1)
339SB104[8]	205243-001	12-Aug-08	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil
338.1SB107[8]	205244-001	12-Aug-08	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil
338.1SB107[11]	205244-002	12-Aug-08	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil
338.1SB105[8]	205244-003	12-Aug-08	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil
338.1SB105[11]	205244-004	12-Aug-08	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil
338.1SB106[8]	205244-005	12-Aug-08	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil
338.1SB106[11]	205244-006	12-Aug-08	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil
334SB101[3]	205244-007	12-Aug-08	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil
339SB104[11]	205244-008	12-Aug-08	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil (2)
DUP1-081208	205244-009	12-Aug-08	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	FD (2)
DUP1-081308	205289-002	12-Aug-08	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	FD (3)
337SB101[3.5]	205289-003	12-Aug-08	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil
MT-14SB07[2.5]	205289-004	12-Aug-08	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil
MT-14SB12[3.5]	205289-005	12-Aug-08	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil
MT-14SB09[2.5]	205289-006	12-Aug-08	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil

Table 1
Sample Summary
Fuel Distribution System
The Presidio of San Francisco, CA

Site Sample ID	Laboratory Sample ID	Date Sampled	Analyses	Sample Type
MT-14SB05[2.5]	205289-007	12-Aug-08	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil
MT-14SB09[7]	205289-008	12-Aug-08	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil
MT-14SB08[1.5]	205289-009	12-Aug-08	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil
337SB101[2.5]	205290-001	13-Aug-08	PAHs (8270-SIM), TPH-Diesel/FO (8015B)	Soil (3)

PAHs: Polynuclear Aromatic Hydrocarbons

TPH: Total Petroleum Hydrocarbons

FO: Fuel Oil

FD: Field duplicate of previous numbered sample, (1), (2), etc.

BOLD: Bold typeface indicates samples/analyses that received full (Level IV) data validation

Table 2
Qualified Data Summary
Fuel Distribution System
The Presidio of San Francisco, CA

Sample ID	Laboratory ID	Analysis Method	Compound	Qualifier	Reason
MT-14SB10[1.5]	205215-001	8015B	Diesel C12-C24	J+	Surrogate percent recovery failure
MT-14SB10[1.5]	205215-001	8015B	Fuel Oil C24-C36	J+	Surrogate percent recovery failure

Table 3
Summary of Field Duplicates
Fuel Distribution System
The Presidio of San Francisco, CA

Original Sample ID	Laboratory ID	Matrix	Compound	Original Results*	Duplicate Sample ID	Laboratory ID	Duplicate Results*	RPD
MT-14SB01[2.5]	205216-001	Soil	All PAHs	ND	DUP1-081108	205215-005	ND	NA
MT-14SB01[2.5]	205216-001	Soil	Diesel C12-C24	ND	DUP1-081108	205215-005	ND	NA
MT-14SB01[2.5]	205216-001	Soil	Fuel Oil C24-C36	ND	DUP1-081108	205215-005	ND	NA
339SB104[11]	205244-008	Soil	All PAHs	ND	DUP1-081208	205244-009	ND	NA
339SB104[11]	205244-008	Soil	Diesel C12-C24	ND	DUP1-081208	205244-009	ND	NA
339SB104[11]	205244-008	Soil	Fuel Oil C24-C36	ND	DUP1-081208	205244-009	ND	NA
337SB101[2.5]	205290-001	Soil	Fluorene	210	DUP1-081308	205289-002	260	-21%
337SB101[2.5]	205290-001	Soil	Phenanthrene	48	DUP1-081308	205289-002	ND<57	NC
337SB101[2.5]	205290-001	Soil	Anthracene	ND<57	DUP1-081308	205289-002	66	NC
337SB101[2.5]	205290-001	Soil	Fluoranthene	63	DUP1-081308	205289-002	180	-96%
337SB101[2.5]	205290-001	Soil	Pyrene	61	DUP1-081308	205289-002	150	NC
337SB101[2.5]	205290-001	Soil	Benzo(a)anthracene	ND<57	DUP1-081308	205289-002	83	NC
337SB101[2.5]	205290-001	Soil	Chrysene	130	DUP1-081308	205289-002	300	-79%
337SB101[2.5]	205290-001	Soil	Benzo(b)fluoranthene	ND<57	DUP1-081308	205289-002	88	NC
337SB101[2.5]	205290-001	Soil	Benzo(k)fluoranthene	ND<57	DUP1-081308	205289-002	44	NC
337SB101[2.5]	205290-001	Soil	Benzo(a)pyrene	ND<57	DUP1-081308	205289-002	73	NC
337SB101[2.5]	205290-001	Soil	Benzo(g,h,i)perylene	ND<57	DUP1-081308	205289-002	21	NC
337SB101[2.5]	205290-001	Soil	All other PAHs	ND	DUP1-081308	205289-002	ND	NA
337SB101[2.5]	205290-001	Soil	Diesel C12-C24	1300	DUP1-081308	205289-002	1200	8.0%
337SB101[2.5]	205290-001	Soil	Fuel Oil C24-C36	1300	DUP1-081308	205289-002	1300	0%

*Units for TPH analyses are mg/kg; units for PAH analyses are ug/kg.

PAHs: Polynuclear Aromatic Hydrocarbons

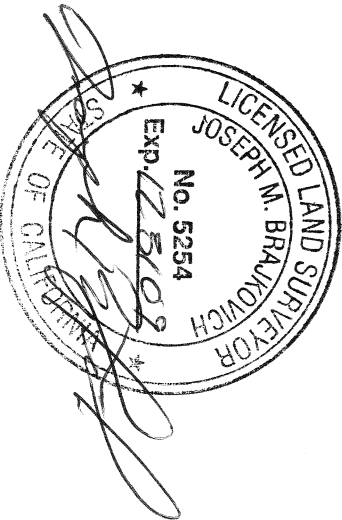
ND: Not detected

NC: Not calculated. The absolute difference between the sample result and the duplicate sample result is less than twice the reporting limit.

NA: Not applicable. Calculation of the relative percent difference between the sample result and the duplicate sample result is not applicable.

Appendix E
Surveyor's Report

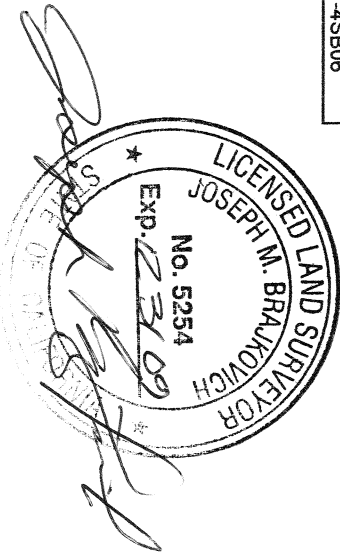
POINT NO.	FIELD PT CLASS	DATE	NORTHING NAD 27	EASTING NAD 27	LATITUDE	LONGITUDE	ELEVATION NVD 29	ELEVATION PLW	ORGANIZATION	FIELD PT. NAME
200	FL	10/15/2007	477623.99	1433426.24	37.7954127	-122.4620359	237.9	235.3	PLS SURVEYS INC	MT-13SB02
221	FL	10/15/2007	477966.06	1433211.53	37.7963121	-122.4628029	203.4	200.8	PLS SURVEYS INC	MT-12SB04
222	FL	10/15/2007	477996.35	1433147.27	37.7964190	-122.4630282	205.7	203.1	PLS SURVEYS INC	MT-12SB03
223	FL	10/15/2007	477722.60	1433222.40	37.7966717	-122.4627483	233.6	230.9	PLS SURVEYS INC	MT-13SB01
225	FL	10/15/2007	478063.20	1433243.32	37.7966081	-122.4627006	192.8	190.2	PLS SURVEYS INC	BR6-1SB01
226	FL	10/15/2007	478258.03	1433345.29	37.7971489	-122.4623620	175.2	172.6	PLS SURVEYS INC	BR6-1SB02
227	FL	10/15/2007	478318.50	1433417.29	37.7973191	-122.4621172	169.4	166.8	PLS SURVEYS INC	BR6-1SB03
228	FL	10/15/2007	482168.48	1430907.35	37.8077452	-122.4710827	35.5	32.8	PLS SURVEYS INC	BR9-1SB01
229	FL	10/15/2007	482118.19	1430916.22	37.8076077	-122.4710483	39.1	36.5	PLS SURVEYS INC	BR9-1SB02
230	FL	10/15/2007	482068.31	1430925.94	37.8074713	-122.4710110	42.4	39.8	PLS SURVEYS INC	BR9-1SB03
231	FL	10/15/2007	479646.46	1435529.85	37.8010866	-122.4549033	45.7	43.0	PLS SURVEYS INC	BR10-1SB07
232	FL	10/15/2007	479629.19	1435554.52	37.8010406	-122.4548167	45.2	42.6	PLS SURVEYS INC	BR10-2SB01
233	FL	10/15/2007	479672.87	1435536.75	37.8011595	-122.4548814	44.7	42.1	PLS SURVEYS INC	BR10-1SB06
234	FL	10/15/2007	479725.31	1435548.64	37.8013042	-122.4548440	42.5	39.9	PLS SURVEYS INC	BR10-1SB05
235	FL	10/15/2007	479927.64	1435580.89	37.8018615	-122.4547470	38.5	35.9	PLS SURVEYS INC	BR10-1SB03
236	FL	10/15/2007	479943.11	1435585.04	37.8019043	-122.4547338	38.2	35.6	PLS SURVEYS INC	BR10-1SB02
237	FL	10/15/2007	479986.88	1435597.59	37.8020252	-122.4546935	36.8	34.1	PLS SURVEYS INC	BR10-1SB01
238	FL	10/15/2007	479923.99	1435586.08	37.8018518	-122.4547288	38.1	35.5	PLS SURVEYS INC	BR10-1SB04
239	FL	10/15/2007	479682.69	1435292.26	37.8011724	-122.4557281	52.7	50.0	PLS SURVEYS INC	BR7-2SB02
240	FL	10/15/2007	479777.19	1435141.34	37.8014232	-122.4562572	51.6	48.9	PLS SURVEYS INC	BR7-2SB01
241	FL	10/15/2007	479924.81	1434932.42	37.8018166	-122.4569908	46.6	44.0	PLS SURVEYS INC	BR7-1SB06
244	FL	10/15/2007	481131.93	1430518.10	37.8048767	-122.4723541	188.4	185.7	PLS SURVEYS INC	MT-3SB02
245	FL	10/15/2007	481260.14	1430620.71	37.8052347	-122.4720084	179.0	176.4	PLS SURVEYS INC	MT-3SB01
246	FL	10/15/2007	481451.06	1430718.58	37.8057645	-122.4716836	150.5	147.8	PLS SURVEYS INC	MT-2SB06
247	FL	10/15/2007	481562.16	1430771.30	37.8060726	-122.4715093	121.6	119.0	PLS SURVEYS INC	MT-2SB01
248	FL	10/15/2007	481507.40	1430741.51	37.8059205	-122.4716084	126.8	124.2	PLS SURVEYS INC	MT-2SB05
249	FL	10/15/2007	481494.47	1430756.97	37.8058859	-122.4715539	125.7	123.1	PLS SURVEYS INC	MT-2SB04
250	FL	10/15/2007	481508.76	1430769.24	37.8059259	-122.4715125	125.7	123.1	PLS SURVEYS INC	MT-2SB02
251	FL	10/15/2007	481481.03	1430772.74	37.8058499	-122.4714984	124.7	122.0	PLS SURVEYS INC	MT-2SB03
252	FL	10/15/2007	480532.54	1429563.41	37.8031757	-122.4756141	246.0	243.4	PLS SURVEYS INC	BR1-2SB04
253	FL	10/15/2007	480531.53	1429572.70	37.8031735	-122.4755819	246.0	243.3	PLS SURVEYS INC	BR1-2SB05
254	FL	10/15/2007	480547.71	1429573.10	37.8032179	-122.4755816	245.7	243.1	PLS SURVEYS INC	BR1-2SB06
255	FL	10/15/2007	480342.95	1429561.89	37.8026551	-122.4756055	250.3	247.7	PLS SURVEYS INC	BR1-2SB02
256	FL	10/15/2007	480342.94	1429569.46	37.8026555	-122.4755793	250.2	247.6	PLS SURVEYS INC	BR1-2SB03
257	FL	10/15/2007	480332.47	1429569.37	37.8026267	-122.4755788	250.4	247.8	PLS SURVEYS INC	BR1-2SB01
258	FL	10/15/2007	480189.44	1429571.66	37.8022341	-122.4755605	254.0	251.3	PLS SURVEYS INC	BR1-1SB03
259	FL	10/15/2007	479616.24	1429524.03	37.8006576	-122.4756834	268.2	265.5	PLS SURVEYS INC	BR1-1SB02
260	FL	10/15/2007	479551.15	1429530.71	37.8004792	-122.4756555	268.9	266.3	PLS SURVEYS INC	BR1-1SB01
261	FL	10/15/2007	479362.15	1429515.48	37.7999594	-122.4756944	282.8	280.2	PLS SURVEYS INC	MT-5SB02
262	FL	10/15/2007	479608.56	1429614.04	37.8006417	-122.4753714	268.0	265.3	PLS SURVEYS INC	MT-5SB01
263	FL	10/15/2007	479506.69	1430171.35	37.8003943	-122.4734355	236.4	233.7	PLS SURVEYS INC	BR2-2SB01
264	FL	10/15/2007	479501.20	1430178.80	37.8003796	-122.4734093	235.8	233.1	PLS SURVEYS INC	BR2-2SB02
265	FL	10/15/2007	479509.63	1430184.54	37.8004031	-122.4733900	234.5	231.8	PLS SURVEYS INC	BR2-2SB03
266	FL	10/15/2007	479811.12	1430259.06	37.8012352	-122.4731542	227.0	224.4	PLS SURVEYS INC	BR3-1SB01
267	FL	10/15/2007	479851.24	1430481.10	37.8013582	-122.4723888	212.9	210.2	PLS SURVEYS INC	BR3-1SB02
268	FL	10/15/2007	479879.11	1430826.55	37.8014547	-122.4711954	180.8	178.1	PLS SURVEYS INC	BR3-1SB03
269	FL	10/15/2007	479534.86	1431244.84	37.8005336	-122.4697229	141.5	138.9	PLS SURVEYS INC	BR3-2SB01
270	FL	10/15/2007	478849.49	1430519.91	37.7986100	-122.4721814	253.8	251.2	PLS SURVEYS INC	BR3-2SB06



POINT NO.	FIELD PT CLASS	DATE	NORTHING NAD 27	EASTING NAD 27	LATITUDE	LONGITUDE	ELEVATION NVD 29	ELEVATION PLW	ORGANIZATION	FIELD PT. NAME
271	FL	10/15/2007	478780.48	1430452.03	37.7984165	-122.4724112	257.9	255.2	PLS SURVEYS INC	BR5-2SB03
272	FL	10/15/2007	478795.04	1430451.94	37.7984565	-122.4724126	257.6	255.0	PLS SURVEYS INC	BR5-2SB05
273	FL	10/15/2007	478788.58	1430444.08	37.7984383	-122.4724394	258.0	255.3	PLS SURVEYS INC	BR5-2SB04
274	FL	10/15/2007	478782.61	1430435.72	37.7984214	-122.4724678	258.4	255.8	PLS SURVEYS INC	BR5-2SB01
275	FL	10/15/2007	478798.12	1430440.62	37.7984643	-122.4724520	257.9	255.3	PLS SURVEYS INC	BR5-2SB02
276	FL	10/15/2007	478988.10	1430701.75	37.7990010	-122.4715623	242.6	240.0	PLS SURVEYS INC	BR5-2SB07
277	FL	10/15/2007	479009.85	1430780.53	37.7990653	-122.4712913	235.8	233.2	PLS SURVEYS INC	BR5-2SB08
278	FL	10/15/2007	478804.01	1430900.63	37.7985071	-122.4708607	217.8	215.1	PLS SURVEYS INC	BR5-3SB01
279	FL	10/15/2007	478738.55	1430916.49	37.7983283	-122.4708011	216.9	214.2	PLS SURVEYS INC	BR5-3SB02
280	FL	10/15/2007	478672.67	1430943.55	37.7981489	-122.4707026	217.7	215.1	PLS SURVEYS INC	BR5-3SB03
281	FL	10/15/2007	478614.04	1431011.93	37.7979919	-122.4704617	219.3	216.6	PLS SURVEYS INC	BR5-3SB04
282	FL	10/15/2007	478486.96	1430818.85	37.7976318	-122.4711206	249.4	246.7	PLS SURVEYS INC	MT-9SB01
283	FL	10/15/2007	478444.54	1430999.89	37.7975256	-122.4704911	221.4	218.8	PLS SURVEYS INC	MT-9SB02
284	FL	10/15/2007	478344.20	1431200.34	37.7972619	-122.4697902	219.9	217.3	PLS SURVEYS INC	MT-9SB03
285	FL	10/15/2007	478184.07	1434514.59	37.7970131	-122.4683106	109.1	106.5	PLS SURVEYS INC	MT-15SB02
286	FL	10/15/2007	478257.86	1434555.74	37.7972180	-122.4681736	107.9	105.2	PLS SURVEYS INC	MT-15SB03
287	FL	10/15/2007	477941.14	1434208.68	37.7963285	-122.4693515	142.5	139.9	PLS SURVEYS INC	MT-15SB01
288	FL	10/15/2007	478303.49	1435280.12	37.7973849	-122.4656704	57.9	55.2	PLS SURVEYS INC	BR13-1SB03
289	FL	10/15/2007	478542.01	1435010.63	37.7980243	-122.4666201	89.3	86.7	PLS SURVEYS INC	BR13-1SB01
290	FL	10/15/2007	478360.30	1435237.20	37.7975384	-122.4658230	69.9	67.3	PLS SURVEYS INC	BR13-1SB02
291	FL	10/15/2007	478732.20	1435205.76	37.7985577	-122.4659687	80.7	78.0	PLS SURVEYS INC	BR12-1SB01
292	FL	10/15/2007	478726.98	1435213.10	37.7985438	-122.4659329	80.9	78.3	PLS SURVEYS INC	BR12-1SB03
293	FL	10/15/2007	478676.23	1434814.04	37.7983816	-122.4673101	86.9	84.2	PLS SURVEYS INC	MT-16SB03
294	FL	10/15/2007	478569.72	1434748.31	37.7980853	-122.4675298	91.1	88.5	PLS SURVEYS INC	MT-16SB02
295	FL	10/15/2007	478516.18	1434756.43	37.7979388	-122.4674978	94.2	91.5	PLS SURVEYS INC	MT-16SB01
296	FL	10/15/2007	479173.52	1435123.47	37.7997647	-122.4662754	68.2	65.5	PLS SURVEYS INC	MT-17SB01
297	FL	10/15/2007	479158.45	1435163.54	37.7997256	-122.4661356	67.3	64.6	PLS SURVEYS INC	MT-17SB02
298	FL	10/15/2007	479219.85	1435153.36	37.7998937	-122.4661753	66.5	63.8	PLS SURVEYS INC	MT-17SB03
299	FL	10/15/2007	479248.70	1435175.40	37.7999741	-122.4661011	63.6	61.0	PLS SURVEYS INC	MT-17SB04
300	FL	10/15/2007	479331.76	1435231.59	37.8002054	-122.4659127	61.1	58.5	PLS SURVEYS INC	MT-17SB05
301	FL	10/15/2007	479397.67	1435273.33	37.8003888	-122.4657730	59.2	56.6	PLS SURVEYS INC	MT-17SB06
302	FL	10/15/2007	479566.10	1435375.31	37.8008571	-122.4654323	56.2	53.5	PLS SURVEYS INC	MT-17SB07
303	FL	10/15/2007	479613.02	1435404.70	37.8009876	-122.4653340	54.2	51.6	PLS SURVEYS INC	MT-17SB08
304	FL	10/15/2007	479580.19	1435453.18	37.8009002	-122.4651639	52.7	50.1	PLS SURVEYS INC	MT-17SB09
305	FL	10/15/2007	479581.94	1435495.05	37.8009074	-122.4650191	48.7	46.1	PLS SURVEYS INC	MT-17SB10
306	FL	10/15/2007	479886.41	1434914.98	37.8017101	-122.4670484	46.9	44.2	PLS SURVEYS INC	BR7-1SB05
307	FL	10/15/2007	479927.53	1434800.04	37.8018165	-122.4674491	43.2	40.5	PLS SURVEYS INC	BR7-1SB04
308	FL	10/15/2007	479955.96	1434721.94	37.8018900	-122.4677214	43.7	41.1	PLS SURVEYS INC	BR7-1SB03
309	FL	10/15/2007	479997.92	1434609.46	37.8019988	-122.4681137	48.3	45.7	PLS SURVEYS INC	BR7-1SB02
310	FL	10/15/2007	480037.74	1434508.58	37.8021023	-122.4684656	48.2	45.5	PLS SURVEYS INC	BR7-1SB01
311	FL	10/15/2007	479307.45	1434092.88	37.8000733	-122.4698512	81.8	79.1	PLS SURVEYS INC	BR6-3SB03
312	FL	10/15/2007	479254.20	1434059.04	37.7999252	-122.4699644	83.4	80.7	PLS SURVEYS INC	BR6-3SB02
313	FL	10/15/2007	479241.15	1434006.66	37.7998863	-122.4601448	83.9	81.2	PLS SURVEYS INC	BR6-3SB01
314	FL	10/15/2007	479632.09	1435905.77	37.8010687	-122.4636015	36.9	34.3	PLS SURVEYS INC	BR10-3SB02
315	FL	10/15/2007	479668.70	1435925.21	37.8011703	-122.4635368	35.6	33.0	PLS SURVEYS INC	BR10-3SB01
316	FL	10/15/2007	481478.37	1430770.34	37.8058425	-122.4715065	124.9	122.3	PLS SURVEYS INC	MT-2SB03
1012	FL	10/15/2007	478246.14	1432250.16	37.7970532	-122.4661504	268.8	266.1	PLS SURVEYS INC	MT-11SB02



POINT NO.	FIELD PT CLASS	DATE	NORTHING NAD 27	EASTING NAD 27	LATITUDE	LONGITUDE	ELEVATION NVD 29	ELEVATION PLW	ORGANIZATION	FIELD PT. NAME
1201	FL	10/15/2007	478074.53	1433013.40	37.7966260	-122.4634970	262.5	259.8	PLS SURVEYS INC	MT-12SB01
1202	FL	10/15/2007	478130.61	1432850.56	37.7967706	-122.4640646	295.6	293.0	PLS SURVEYS INC	MT-11SB08
1203	FL	10/15/2007	478155.58	1432737.22	37.7968326	-122.4644586	303.1	300.4	PLS SURVEYS INC	MT-11SB07
1204	FL	10/15/2007	478174.82	1432646.05	37.7968802	-122.4647754	305.0	302.4	PLS SURVEYS INC	MT-11SB06
1205	FL	10/15/2007	478193.95	1432536.05	37.7969264	-122.4651574	294.4	291.7	PLS SURVEYS INC	MT-11SB05
1206	FL	10/15/2007	478210.12	1432441.93	37.7969654	-122.4654843	293.0	290.4	PLS SURVEYS INC	MT-11SB04
1207	FL	10/15/2007	478227.41	1432345.53	37.7970073	-122.4658191	287.3	284.7	PLS SURVEYS INC	MT-11SB03
1209	FL	10/15/2007	478264.20	1432141.09	37.7970965	-122.4665292	264.2	261.6	PLS SURVEYS INC	MT-11SB01
1210	FL	10/15/2007	478330.37	1431509.04	37.7972417	-122.4687210	203.6	201.0	PLS SURVEYS INC	MT-10SB01
1212	FL	10/15/2007	478040.17	1433095.71	37.7965364	-122.4632097	233.4	230.8	PLS SURVEYS INC	MT-12SB02
2231	FL	10/15/2007	480626.39	1430219.33	37.8034714	-122.4733511	214.1	211.4	PLS SURVEYS INC	MT-4SB02
2232	FL	10/15/2007	480655.67	1430221.36	37.8035519	-122.4733463	214.0	211.4	PLS SURVEYS INC	MT-4SB01
2233	FL	10/15/2007	480691.87	1430241.33	37.8036524	-122.4732798	213.2	210.5	PLS SURVEYS INC	MT-3SB09
2234	FL	10/15/2007	480694.78	1430263.44	37.8036617	-122.4732035	212.5	209.9	PLS SURVEYS INC	MT-3SB08
2235	FL	10/15/2007	480750.05	1430299.91	37.8038156	-122.4730813	212.9	210.3	PLS SURVEYS INC	MT-3SB07
2236	FL	10/15/2007	480803.23	1430304.29	37.8039618	-122.4730700	212.3	209.7	PLS SURVEYS INC	MT-3SB06
2237	FL	10/15/2007	480818.06	1430317.51	37.8040033	-122.4730254	211.8	209.2	PLS SURVEYS INC	MT-3SB05
2238	FL	10/15/2007	480850.01	1430337.66	37.8040922	-122.4729580	210.8	208.2	PLS SURVEYS INC	MT-3SB03
2239	FL	10/15/2007	480839.10	1430355.50	37.8040633	-122.4728955	210.0	207.3	PLS SURVEYS INC	MT-3SB04
2240	FL	10/15/2007	480582.04	1430176.21	37.8033471	-122.4734971	216.4	213.8	PLS SURVEYS INC	MT-4SB03
2241	FL	10/15/2007	480532.37	1430159.73	37.8032098	-122.4735505	220.0	217.3	PLS SURVEYS INC	MT-4SB04
2242	FL	10/15/2007	480496.72	1430124.55	37.8031098	-122.4736697	221.3	218.6	PLS SURVEYS INC	MT-4SB05
2243	FL	10/15/2007	480451.09	1430105.52	37.8029835	-122.4737322	224.2	221.6	PLS SURVEYS INC	MT-4SB06



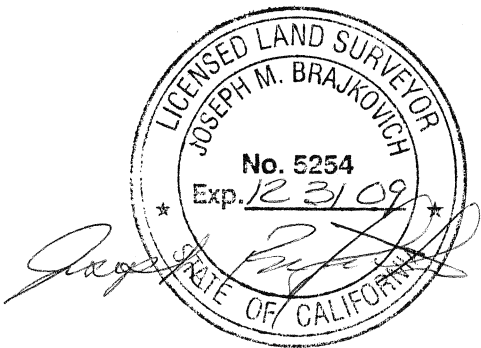
POINT NO.	FIELD PT CLASS	DATE	NORTHING NAD 27	EASTING NAD 27	LATITUDE	LONGITUDE	ELEVATION NVD 29	ELEVATION PLLW	ORGANIZATION	FIELD PT. NAME
200	FL	10/15/2007	477623.99	1433426.24	37.7954127	-122.4620359	237.90	235.26	PLS SURVEYS INC	MT-13SB02
221	FL	10/15/2007	477956.06	1433211.53	37.7963121	-122.4628029	203.39	200.75	PLS SURVEYS INC	MT-12SB04
222	FL	10/15/2007	477996.35	1433147.27	37.7964190	-122.4630282	205.71	203.07	PLS SURVEYS INC	MT-12SB03
223	FL	10/15/2007	477722.60	1433222.40	37.7956717	-122.4627483	233.55	230.91	PLS SURVEYS INC	MT-13SB01
225	FL	10/15/2007	478063.20	1433243.32	37.7966081	-122.4627006	192.81	190.17	PLS SURVEYS INC	BR6-1SB01
226	FL	10/15/2007	478258.03	1433345.29	37.7971489	-122.4623620	175.20	172.56	PLS SURVEYS INC	BR6-1SB02
227	FL	10/15/2007	478318.50	1433417.29	37.7973191	-122.4621172	169.43	166.79	PLS SURVEYS INC	BR6-1SB03
228	FL	10/15/2007	482168.48	1430907.35	37.8077452	-122.4710827	35.48	32.84	PLS SURVEYS INC	BR9-1SB01
229	FL	10/15/2007	482118.19	1430916.22	37.8076077	-122.4710483	39.12	36.48	PLS SURVEYS INC	BR9-1SB02
230	FL	10/15/2007	482068.31	1430925.94	37.8074713	-122.4710110	42.44	39.80	PLS SURVEYS INC	BR9-1SB03
231	FL	10/15/2007	479646.46	1435529.85	37.8010866	-122.4549033	45.67	43.03	PLS SURVEYS INC	BR10-1SB07
232	FL	10/15/2007	479629.19	1435554.52	37.8010406	-122.4548167	45.19	42.55	PLS SURVEYS INC	BR10-2SB01
233	FL	10/15/2007	479672.87	1435536.75	37.8011595	-122.4548814	44.72	42.08	PLS SURVEYS INC	BR10-1SB06
234	FL	10/15/2007	479725.31	1435548.64	37.8013042	-122.4548440	42.50	39.86	PLS SURVEYS INC	BR10-1SB05
235	FL	10/15/2007	479927.64	1435580.89	37.8018615	-122.4547470	38.54	35.90	PLS SURVEYS INC	BR10-1SB03
236	FL	10/15/2007	479943.11	1435585.04	37.8019043	-122.4547338	38.20	35.56	PLS SURVEYS INC	BR10-1SB02
237	FL	10/15/2007	479986.88	1435597.59	37.8020252	-122.4546935	36.76	34.12	PLS SURVEYS INC	BR10-1SB01
238	FL	10/15/2007	479923.99	1435586.08	37.8018518	-122.4547288	38.11	35.47	PLS SURVEYS INC	BR10-1SB04
239	FL	10/15/2007	479682.69	1435292.26	37.8011724	-122.4557281	52.66	50.02	PLS SURVEYS INC	BR7-2SB02
240	FL	10/15/2007	479777.19	1435141.34	37.8014232	-122.4562572	51.56	48.92	PLS SURVEYS INC	BR7-2SB01
241	FL	10/15/2007	479924.81	1434932.42	37.8018166	-122.4569908	46.63	43.99	PLS SURVEYS INC	BR7-1SB06
244	FL	10/15/2007	481131.93	1430518.10	37.8048767	-122.4723541	188.35	185.71	PLS SURVEYS INC	MT-3SB02
245	FL	10/15/2007	481260.14	1430620.71	37.8052347	-122.4720084	179.03	176.39	PLS SURVEYS INC	MT-3SB01
246	FL	10/15/2007	481451.06	1430718.58	37.8057645	-122.4716836	150.45	147.81	PLS SURVEYS INC	MT-2SB06
247	FL	10/15/2007	481562.16	1430771.30	37.8060726	-122.4715093	121.62	118.98	PLS SURVEYS INC	MT-2SB01
248	FL	10/15/2007	481507.40	1430741.51	37.8059205	-122.4716084	126.80	124.16	PLS SURVEYS INC	MT-2SB05
249	FL	10/15/2007	481494.47	1430756.97	37.8058859	-122.4715539	125.73	123.09	PLS SURVEYS INC	MT-2SB04
250	FL	10/15/2007	481508.76	1430769.24	37.8059259	-122.4715125	125.74	123.10	PLS SURVEYS INC	MT-2SB02
251	FL	10/15/2007	481481.03	1430772.74	37.8058499	-122.4714984	124.65	122.01	PLS SURVEYS INC	MT-2SB03
252	FL	10/15/2007	480532.54	1429563.41	37.8031757	-122.4756141	246.00	243.36	PLS SURVEYS INC	BR1-2SB04
253	FL	10/15/2007	480531.53	1429572.70	37.8031735	-122.4755819	245.97	243.33	PLS SURVEYS INC	BR1-2SB05
254	FL	10/15/2007	480547.71	1429573.10	37.8032179	-122.4755816	245.72	243.08	PLS SURVEYS INC	BR1-2SB06
255	FL	10/15/2007	480342.95	1429561.89	37.8026551	-122.4756055	250.33	247.69	PLS SURVEYS INC	BR1-2SB02
256	FL	10/15/2007	480342.94	1429569.46	37.8026555	-122.4755793	250.21	247.57	PLS SURVEYS INC	BR1-2SB03
257	FL	10/15/2007	480332.47	1429569.37	37.8026267	-122.4755788	250.43	247.79	PLS SURVEYS INC	BR1-2SB01
258	FL	10/15/2007	480189.44	1429571.66	37.8022341	-122.4755605	253.98	251.34	PLS SURVEYS INC	BR1-1SB03
259	FL	10/15/2007	479616.24	1429524.03	37.8006576	-122.4756834	268.16	265.52	PLS SURVEYS INC	BR1-1SB02
260	FL	10/15/2007	479551.15	1429530.71	37.8004792	-122.4756555	268.94	266.30	PLS SURVEYS INC	BR1-1SB01
261	FL	10/15/2007	479362.15	1429515.48	37.7999594	-122.4756944	282.82	280.18	PLS SURVEYS INC	MT-5SB02
262	FL	10/15/2007	479608.56	1429614.04	37.8006417	-122.4753714	267.98	265.34	PLS SURVEYS INC	MT-5SB01
263	FL	10/15/2007	479506.69	1430171.35	37.8003943	-122.4734355	236.35	233.71	PLS SURVEYS INC	BR2-2SB01
264	FL	10/15/2007	479501.20	1430178.80	37.8003796	-122.4734093	235.78	233.14	PLS SURVEYS INC	BR2-2SB02
265	FL	10/15/2007	479509.63	1430184.54	37.8004031	-122.4733900	234.45	231.81	PLS SURVEYS INC	BR2-2SB03
266	FL	10/15/2007	479811.12	1430259.06	37.8012352	-122.4731542	227.02	224.38	PLS SURVEYS INC	BR3-1SB01
267	FL	10/15/2007	479851.24	1430481.10	37.8013582	-122.4723888	212.86	210.22	PLS SURVEYS INC	BR3-1SB02
268	FL	10/15/2007	479879.11	1430826.55	37.8014547	-122.4711954	180.78	178.14	PLS SURVEYS INC	BR3-1SB03
269	FL	10/15/2007	479534.86	1431244.84	37.8005336	-122.4697229	141.49	138.85	PLS SURVEYS INC	BR3-2SB01
270	FL	10/15/2007	478849.49	1430519.91	37.7986100	-122.4721814	253.82	251.18	PLS SURVEYS INC	BR5-2SB06



POINT NO.	FIELD PT CLASS	DATE	NORTHING NAD 27	EASTING NAD 27	LATITUDE	LONGITUDE	ELEVATION NVD 29	ELEVATION PLW	ORGANIZATION	FIELD PT. NAME
271	FL	10/15/2007	478780.48	1430452.03	37.7984165	-122.4724112	257.88	255.24	PLS SURVEYS INC	BR5-2SB03
272	FL	10/15/2007	478795.04	1430451.94	37.7984565	-122.4724126	257.60	254.96	PLS SURVEYS INC	BR5-2SB05
273	FL	10/15/2007	478788.58	1430444.08	37.7984383	-122.4724394	257.98	255.34	PLS SURVEYS INC	BR5-2SB04
274	FL	10/15/2007	478782.61	1430435.72	37.7984214	-122.4724678	258.43	255.79	PLS SURVEYS INC	BR5-2SB01
275	FL	10/15/2007	478798.12	1430440.62	37.7984643	-122.4724520	257.93	255.29	PLS SURVEYS INC	BR5-2SB02
276	FL	10/15/2007	478988.10	1430701.75	37.7990010	-122.4715623	242.60	239.96	PLS SURVEYS INC	BR5-2SB07
277	FL	10/15/2007	479009.85	1430780.53	37.7990653	-122.4712913	235.82	233.18	PLS SURVEYS INC	BR5-2SB08
278	FL	10/15/2007	478804.01	1430900.63	37.7985071	-122.4708607	217.77	215.13	PLS SURVEYS INC	BR5-3SB01
279	FL	10/15/2007	478738.55	1430916.49	37.7983283	-122.4708011	216.87	214.23	PLS SURVEYS INC	BR5-3SB02
280	FL	10/15/2007	478672.67	1430943.55	37.7981489	-122.4707026	217.69	215.05	PLS SURVEYS INC	BR5-3SB03
281	FL	10/15/2007	478614.04	1431011.93	37.7979919	-122.4704617	219.27	216.63	PLS SURVEYS INC	BR5-3SB04
282	FL	10/15/2007	478486.96	1430818.85	37.7976318	-122.4711206	249.35	246.71	PLS SURVEYS INC	MT-9SB01
283	FL	10/15/2007	478444.54	1430999.89	37.7975258	-122.4704911	221.40	218.76	PLS SURVEYS INC	MT-9SB02
284	FL	10/15/2007	478344.20	1431200.34	37.7972619	-122.4697902	219.91	217.27	PLS SURVEYS INC	MT-9SB03
285	FL	10/15/2007	478184.07	1434514.59	37.7970131	-122.4583106	109.09	106.45	PLS SURVEYS INC	MT-15SB02
286	FL	10/15/2007	478257.86	1434555.74	37.7972180	-122.4581736	107.88	105.24	PLS SURVEYS INC	MT-15SB03
287	FL	10/15/2007	477941.14	1434208.68	37.7963285	-122.4593515	142.53	139.89	PLS SURVEYS INC	MT-15SB01
288	FL	10/15/2007	478303.49	1435280.12	37.7973849	-122.4556704	57.87	55.23	PLS SURVEYS INC	BR13-1SB03
289	FL	10/15/2007	478542.01	1435010.63	37.7980243	-122.4566201	89.29	86.65	PLS SURVEYS INC	BR13-1SB01
290	FL	10/15/2007	478360.30	1435237.20	37.7975384	-122.4558230	69.89	67.25	PLS SURVEYS INC	BR13-1SB02
291	FL	10/15/2007	478732.20	1435205.76	37.7985577	-122.4559587	80.68	78.04	PLS SURVEYS INC	BR12-1SB01
292	FL	10/15/2007	478726.98	1435213.10	37.7985438	-122.4559329	80.92	78.28	PLS SURVEYS INC	BR12-1SB03
293	FL	10/15/2007	478676.23	1434814.04	37.7983816	-122.4573101	86.87	84.23	PLS SURVEYS INC	MT-16SB03
294	FL	10/15/2007	478569.72	1434748.31	37.7980853	-122.4575298	91.14	88.50	PLS SURVEYS INC	MT-16SB02
295	FL	10/15/2007	478516.18	1434756.43	37.7979388	-122.4574978	94.15	91.51	PLS SURVEYS INC	MT-16SB01
296	FL	10/15/2007	479173.52	1435123.47	37.7997647	-122.4562754	68.17	65.53	PLS SURVEYS INC	MT-17SB01
297	FL	10/15/2007	479158.45	1435163.54	37.7997256	-122.4561356	67.28	64.64	PLS SURVEYS INC	MT-17SB02
298	FL	10/15/2007	479219.85	1435153.36	37.7998937	-122.4561753	66.46	63.82	PLS SURVEYS INC	MT-17SB03
299	FL	10/15/2007	479248.70	1435175.40	37.7999741	-122.4561011	63.61	60.97	PLS SURVEYS INC	MT-17SB04
300	FL	10/15/2007	479331.76	1435231.59	37.8002054	-122.4559127	61.13	58.49	PLS SURVEYS INC	MT-17SB05
301	FL	10/15/2007	479397.67	1435273.33	37.8003888	-122.4557730	59.22	56.58	PLS SURVEYS INC	MT-17SB06
302	FL	10/15/2007	479566.10	1435375.31	37.8008571	-122.4554323	56.15	53.51	PLS SURVEYS INC	MT-17SB07
303	FL	10/15/2007	479613.02	1435404.70	37.8009876	-122.4553340	54.19	51.55	PLS SURVEYS INC	MT-17SB08
304	FL	10/15/2007	479580.19	1435453.18	37.8009002	-122.4551639	52.74	50.10	PLS SURVEYS INC	MT-17SB09
305	FL	10/15/2007	479581.94	1435495.05	37.8009074	-122.4550191	48.71	46.07	PLS SURVEYS INC	MT-17SB10
306	FL	10/15/2007	479886.41	1434914.98	37.8017101	-122.4570484	46.85	44.21	PLS SURVEYS INC	BR7-1SB05
307	FL	10/15/2007	479927.53	1434800.04	37.8018165	-122.4574491	43.15	40.51	PLS SURVEYS INC	BR7-1SB04
308	FL	10/15/2007	479955.96	1434721.94	37.8018900	-122.4577214	43.73	41.09	PLS SURVEYS INC	BR7-1SB03
309	FL	10/15/2007	479997.92	1434609.46	37.8019988	-122.4581137	48.34	45.70	PLS SURVEYS INC	BR7-1SB02
310	FL	10/15/2007	480037.74	1434508.58	37.8021023	-122.4584656	48.18	45.54	PLS SURVEYS INC	BR7-1SB01
311	FL	10/15/2007	479307.45	1434092.88	37.8000733	-122.4598512	81.78	79.14	PLS SURVEYS INC	BR6-3SB03
312	FL	10/15/2007	479254.20	1434059.04	37.7999252	-122.4599644	83.37	80.73	PLS SURVEYS INC	BR6-3SB02
313	FL	10/15/2007	479241.15	1434006.66	37.7998863	-122.4601448	83.87	81.23	PLS SURVEYS INC	BR6-3SB01
314	FL	10/15/2007	479632.09	1435905.77	37.8010687	-122.4536015	36.91	34.27	PLS SURVEYS INC	BR10-3SB02
315	FL	10/15/2007	479668.70	1435925.21	37.8011703	-122.4535368	35.59	32.95	PLS SURVEYS INC	BR10-3SB01
316	FL	10/15/2007	481478.37	1430770.34	37.8058425	-122.4715065	124.92	122.28	PLS SURVEYS INC	MT-2SB03
1012	FL	10/15/2007	478246.14	1432250.16	37.7970532	-122.4661504	268.75	266.11	PLS SURVEYS INC	MT-11SB02



POINT NO.	FIELD PT CLASS	DATE	NORTHING NAD 27	EASTING NAD 27	LATITUDE	LONGITUDE	ELEVATION NVD 29	ELEVATION PLW	ORGANIZATION	FIELD PT. NAME
1201	FL	10/15/2007	478074.53	1433013.40	37.7966260	-122.4634970	262.46	259.82	PLS SURVEYS INC	MT-12SB01
1202	FL	10/15/2007	478130.61	1432850.56	37.7967706	-122.4640646	295.64	293.00	PLS SURVEYS INC	MT-11SB08
1203	FL	10/15/2007	478155.58	1432737.22	37.7968326	-122.4644586	303.07	300.43	PLS SURVEYS INC	MT-11SB07
1204	FL	10/15/2007	478174.82	1432646.05	37.7968802	-122.4647754	305.02	302.38	PLS SURVEYS INC	MT-11SB06
1205	FL	10/15/2007	478193.95	1432536.05	37.7969264	-122.4651574	294.38	291.74	PLS SURVEYS INC	MT-11SB05
1206	FL	10/15/2007	478210.12	1432441.93	37.7969654	-122.4654843	293.00	290.36	PLS SURVEYS INC	MT-11SB04
1207	FL	10/15/2007	478227.41	1432345.53	37.7970073	-122.4658191	287.30	284.66	PLS SURVEYS INC	MT-11SB03
1209	FL	10/15/2007	478264.20	1432141.09	37.7970965	-122.4665292	254.19	251.55	PLS SURVEYS INC	MT-11SB01
1210	FL	10/15/2007	478330.37	1431509.04	37.7972417	-122.4687210	203.61	200.97	PLS SURVEYS INC	MT-10SB01
1212	FL	10/15/2007	478040.17	1433095.71	37.7965364	-122.4632097	233.39	230.75	PLS SURVEYS INC	MT-12SB02
2231	FL	10/15/2007	480626.39	1430219.33	37.8034714	-122.4733511	214.07	211.43	PLS SURVEYS INC	MT-4SB02
2232	FL	10/15/2007	480655.67	1430221.36	37.8035519	-122.4733463	214.01	211.37	PLS SURVEYS INC	MT-4SB01
2233	FL	10/15/2007	480691.87	1430241.33	37.8036524	-122.4732798	213.16	210.52	PLS SURVEYS INC	MT-3SB09
2234	FL	10/15/2007	480694.78	1430263.44	37.8036617	-122.4732035	212.50	209.86	PLS SURVEYS INC	MT-3SB08
2235	FL	10/15/2007	480750.05	1430299.91	37.8038156	-122.4730813	212.90	210.26	PLS SURVEYS INC	MT-3SB07
2236	FL	10/15/2007	480803.23	1430304.29	37.8039618	-122.4730700	212.31	209.67	PLS SURVEYS INC	MT-3SB06
2237	FL	10/15/2007	480818.06	1430317.51	37.8040033	-122.4730254	211.81	209.17	PLS SURVEYS INC	MT-3SB05
2238	FL	10/15/2007	480850.01	1430337.66	37.8040922	-122.4729580	210.80	208.16	PLS SURVEYS INC	MT-3SB03
2239	FL	10/15/2007	480839.10	1430355.50	37.8040633	-122.4728955	209.98	207.34	PLS SURVEYS INC	MT-3SB04
2240	FL	10/15/2007	480582.04	1430176.21	37.8033471	-122.4734971	216.39	213.75	PLS SURVEYS INC	MT-4SB03
2241	FL	10/15/2007	480532.37	1430159.73	37.8032098	-122.4735505	219.96	217.32	PLS SURVEYS INC	MT-4SB04
2242	FL	10/15/2007	480496.72	1430124.55	37.8031098	-122.4736697	221.28	218.64	PLS SURVEYS INC	MT-4SB05
2243	FL	10/15/2007	480451.09	1430105.52	37.8029835	-122.4737322	224.23	221.59	PLS SURVEYS INC	MT-4SB06



PT.	NORTHING	EASTING	LATTITUDE	LONGITUDE	ELEVATION	ELEVATION	ELEVATION	ELEVATION	ELEVATION	ELEVATION	DESCRIPTION	GPS	ACCURACY	HORZ.	COMPANY	EQUIP.	DATE	ELEV	CLASS
NO.	NAD 27	NAD 27			NAVD 88	NAVD 88	NAVD 88	PLLW	PLLW	PLLW		CODE	CENTIMETER	CODE				CODE	
					VAULT	CASING	GROUND	VAULT	CASING	GROUND									
202	477670.96	1433602.96	37.7956227	-122.4603450			226.57			226.94	MT14SB05	CONV	0.5	NAD83	PLS SURVEYS INC.	L530	8/28/2008	CGPS	SUR
203	477693.96	1433661.02	37.7956892	-122.4601457			225.19			225.56	MT14SB07	CONV	0.5	NAD83	PLS SURVEYS INC.	L530	8/28/2008	CGPS	SUR
204	477736.86	1433676.38	37.7958079	-122.4600957			219.86			220.23	MT14SB08	CONV	0.5	NAD83	PLS SURVEYS INC.	L530	8/28/2008	CGPS	SUR
210	477642.44	1433488.61	37.7955378	-122.4607385			232.60			232.97	MT14SB01	CONV	0.5	NAD83	PLS SURVEYS INC.	L530	8/28/2008	CGPS	SUR
211	477643.97	1433493.55	37.7955423	-122.4607215			232.31			232.58	MT14SB02	CONV	0.5	NAD83	PLS SURVEYS INC.	L530	8/28/2008	CGPS	SUR
212	477648.82	1433501.66	37.7955561	-122.4606938			231.72			232.09	MT14SB03	CONV	0.5	NAD83	PLS SURVEYS INC.	L530	8/28/2008	CGPS	SUR
213	477657.51	1433543.60	37.7955824	-122.4605494			229.20			229.57	MT14SB04	CONV	0.5	NAD83	PLS SURVEYS INC.	L530	8/28/2008	CGPS	SUR
216	477726.09	1433596.10	37.7957737	-122.4603727			223.51			223.88	MT-14SB06	CONV	0.5	NAD83	PLS SURVEYS INC.	L530	8/28/2008	CGPS	SUR
221	477800.27	1433647.81	37.7959804	-122.4601991			215.28			215.65	MT-14SB09	CONV	0.5	NAD83	PLS SURVEYS INC.	L530	8/28/2008	CGPS	SUR
225	477872.79	1433731.69	37.7961843	-122.4599141			199.60			199.97	338.1SB105	CONV	0.5	NAD83	PLS SURVEYS INC.	L530	8/28/2008	CGPS	SUR
226	477879.34	1433757.48	37.7962038	-122.4598254			197.90			198.27	338.1SB106	CONV	0.5	NAD83	PLS SURVEYS INC.	L530	8/28/2008	CGPS	SUR
227	477900.86	1433763.23	37.7962632	-122.4598070			196.30			196.67	338.1SB107	CONV	0.5	NAD83	PLS SURVEYS INC.	L530	8/28/2008	CGPS	SUR
231	477817.98	1433767.83	37.7960359	-122.4597851			205.26			205.63	MT-14SB10	CONV	0.5	NAD83	PLS SURVEYS INC.	L530	8/28/2008	CGPS	SUR
232	477871.73	1433822.47	37.7961866	-122.4595999			195.00			195.37	MT-14SB11	CONV	0.5	NAD83	PLS SURVEYS INC.	L530	8/28/2008	CGPS	SUR
235	477968.75	1433762.27	37.7964496	-122.4598153	189.04	188.69		189.41	189.06		338MW101_C	CONV	0.5	NAD83	PLS SURVEYS INC.	L530	8/28/2008	CGPS	MW
240	477888.06	1433865.49	37.7962339	-122.4594523			184.27			184.64	MT-14SB12	CONV	0.5	NAD83	PLS SURVEYS INC.	L530	8/28/2008	CGPS	SUR
244	477968.48	1433923.82	37.7964581	-122.4592563	180.22	179.78		180.59	180.15		FM14MW103_C	CONV	0.5	NAD83	PLS SURVEYS INC.	L530	8/28/2008	CGPS	MW
246	477987.80	1434045.14	37.7965181	-122.4588379			162.89			163.26	MT-14SB14	CONV	0.5	NAD83	PLS SURVEYS INC.	L530	8/28/2008	CGPS	SUR
247	478014.58	1433952.14	37.7965863	-122.4591616			171.56			171.93	MT-14SB13	CONV	0.5	NAD83	PLS SURVEYS INC.	L530	8/28/2008	CGPS	SUR
248	477993.86	1433820.92	37.7965219	-122.4596142	183.89	183.36		184.26	183.73		339MW101_C	CONV	0.5	NAD83	PLS SURVEYS INC.	L530	8/28/2008	CGPS	MW
250	477959.91	1433819.16	37.7964286	-122.4596178			185.45			185.82	339SB104	CONV	0.5	NAD83	PLS SURVEYS INC.	L530	8/28/2008	CGPS	SUR
2	477926.07	1434020.29	37.7963472	-122.4589194	169.61	169.22		169.98	169.59		342MW101	CONV	0.5	NAD83	PLS SURVEYS INC.	L530	8/28/2008	CGPS	SUR
201	477620.71	1433601.52	37.7954847	-122.4603463			225.38			225.75	BC	CONV	0.5	NAD83	PLS SURVEYS INC.	L530	8/28/2008	CGPS	
205	477798.82	1433730.21	37.7959811	-122.4599139			219.13			219.50	BC	CONV	0.5	NAD83	PLS SURVEYS INC.	L530	8/28/2008	CGPS	
206	477743.27	1433681.51	37.7958258	-122.4600784			219.52			219.89	BC	CONV	0.5	NAD83	PLS SURVEYS INC.	L530	8/28/2008	CGPS	
207	477694.37	1433665.53	37.7956906	-122.4601301			225.21			225.58	BC	CONV	0.5	NAD83	PLS SURVEYS INC.	L530	8/28/2008	CGPS	
208	477678.11	1433527.38	37.7956380	-122.4606069			228.45			228.82	BC_334	CONV	0.5	NAD83	PLS SURVEYS INC.	L530	8/28/2008	CGPS	
209	477659.94	1433504.35	37.7955868	-122.4606853			230.20			230.57	BC_334	CONV	0.5	NAD83	PLS SURVEYS INC.	L530	8/28/2008	CGPS	
214	477712.76	1433559.63	37.7957350	-122.4604979			225.43			225.80	BC_335	CONV	0.5	NAD83	PLS SURVEYS INC.	L530	8/28/2008	CGPS	
215	477717.42	1433578.25	37.7957489	-122.4604338			224.48			224.85	STAIRS	CONV	0.5	NAD83	PLS SURVEYS INC.	L530	8/28/2008	CGPS	
217	477737.03	1433596.38	37.7958038	-122.4603725			222.89			223.26	STAIRS	CONV	0.5	NAD83	PLS SURVEYS INC.	L530	8/28/2008	CGPS	
218	477756.24	1433598.11	37.7958566	-122.4603679			221.99			222.36	BC_335	CONV	0.5	NAD83	PLS SURVEYS INC.	L530	8/28/2008	CGPS	
219	477781.86	1433624.42	37.7959285	-122.4602787			218.00			218.37	BC_336	CONV	0.5	NAD83	PLS SURVEYS INC.	L530	8/28/2008	CGPS	
220	477801.96	1433645.39	37.7959849	-122.4602076			215.25			215.62	BC_336	CONV	0.5	NAD83	PLS SURVEYS INC.	L530	8/28/2008	CGPS	
222	477829.73	1433673.33	37.7960627	-122.4601129			208.89			209.26	BC_337	CONV	0.5	NAD83	PLS SURVEYS INC.	L530	8/28/2008	CGPS	
223	477850.05	1433694.20	37.7961197	-122.4600422			205.76			206.13	BC_337	CONV	0.5	NAD83	PLS SURVEYS INC.	L530	8/28/2008	CGPS	
224	477873.95	1433720.45	37.7961868	-122.4599531			200.24			200.61	BC_338	CONV	0.5	NAD83	PLS SURVEYS INC.	L530	8/28/2008	CGPS	
228	477910.05	1433766.22	37.7962886	-122.4597974			195.56			195.93	BC_338	CONV	0.5	NAD83	PLS SURVEYS INC.	L530	8/28/2008	CGPS	
229	477891.42	1433760.94	37.7962372	-122.4598143			196.99			19.36	STAIRS	CONV	0.5	NAD83	PLS SURVEYS INC.	L530	8/28/2008	CGPS	
230	477875.30	1433739.42	37.7961917	-122.4598876			198.92			199.29	STAIRS	CONV	0.5	NAD83	PLS SURVEYS INC.	L530	8/28/2008	CGPS	
233	477928.07	1433794.89	37.7963397	-122.4596995			189.32			189.69	BC_339	CONV	0.5	NAD83	PLS SURVEYS INC.	L530	8/28/2008	CGPS	
236	477940.30	1433821.14	37.7963748	-122.4596095			186.03			186.40	BC_339	CONV	0.5	NAD83	PLS SURVEYS INC.	L530	8/28/2008	CGPS	
237	477950.51	1433843.18	37.7964041	-122.4595340			201.71			202.08	BC_340	CONV	0.5	NAD83	PLS SURVEYS INC.	L530	8/28/2008	CGPS	
238	477870.17	1433833.11	37.7961830	-122.4595630			187.25			187.62	BC_383	CONV	0.5	NAD83	PLS SURVEYS INC.	L530	8/28/2008	CGPS	
239	477842.59	1433858.18	37.7961087	-122.4594743			187.59			187.96	BC_383	CONV	0.5	NAD83	PLS SURVEYS INC.	L530	8/28/2008	CGPS	
242	477939.55	1433870.10	37.7963756	-122.4594401			182.69			183.06	BC_340	CONV	0.5	NAD83	PLS SURVEYS INC.	L530	8/28/2008	CGPS	
243	477977.53	1433885.78	37.7964808	-122.4593886			180.90			181.27	BC_340	CONV	0.5	NAD83	PLS SURVEYS INC.	L530	8/28/2008	CGPS	
252	477977.88	1433803.95	37.7964770	-122.4596717			185.54			185.91	BC_339	CONV	0.5	NAD83	PLS SURVEYS INC.	L530	8/28/2008	CGPS	
253	477988.71	1433858.65	37.7965099	-122.4594832			181.26			181.63	BC_340	CONV	0.5	NAD83	PLS SURVEYS INC.	L530	8/28/2008	CGPS	



Appendix F

Additional Investigation Results Addressing Data Gaps in FDS Removal Program

Appendix F-1

FDS Section BR8-1 Historical Documents

Final

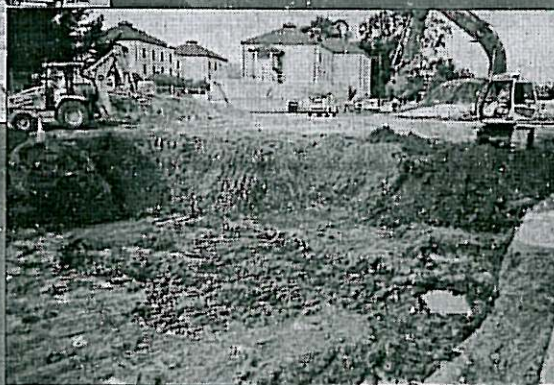
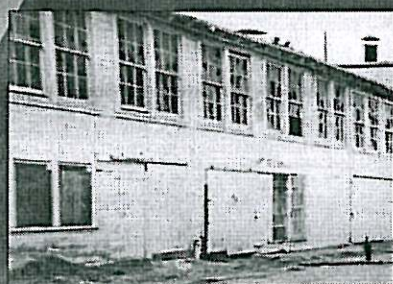
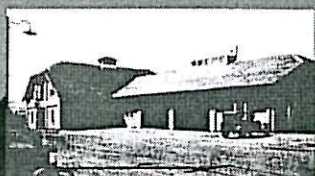
Corrective Action Plan Building 1065 Area Presidio of San Francisco, California

Project No. 4089030004 00114

January 2007

The Presidio Trust

67 Martinez Street
P.O. Box 29052
San Francisco, CA 94129-0052



MACTEC

5341 Old Redwood Highway, Suite 300
Petaluma, CA 94954 - (707) 798-3800



January 24, 2007

Mr. Devender Narala
California Water Quality Control Board
San Francisco Bay Region
1515 Clay Street, Suite 1400
Oakland, California 94612

Subject: Final Corrective Action Plan
Building 1065 Area
Presidio of San Francisco - San Francisco, California

Dear Mr. Narala:

In accordance with Task 6 of Order R2-2003-0080, the Presidio Trust (Trust) is pleased to provide the California Regional Water Quality Control Board ("Water Board") with one copy of the document entitled: *Corrective Action Plan, Building 1065 Area, Presidio of San Francisco, California* dated January 24, 2007 ("Final CAP"). This document was prepared by MACTEC for the Trust. The Trust hereby requests Water Board approval the enclosed Final CAP.

A copy of the draft Corrective Action Plan in this matter was submitted on June 30, 2005 for Water Board and public review and comment. The Water Board commented on the draft CAP by letter dated November 14, 2005. Responses to comments are presented in Appendix A of the enclosed Final CAP. The Trust issued a recommended final version of the CAP under transmittal letter dated August 16, 2006. The Water Board provided some editorial comments verbally to the Trust and the enclosed Final CAP addresses all Water Board comments.

The Trust has also begun preparation of the Implementation Work Plan associated with the selected corrective actions required by the subject Final CAP. Currently, the Trust plans to commence construction for the selected corrective actions at the Building 1065 Area site in the spring of 2007. We look forward to your approval of the enclosed Final CAP and a successful remediation of the Building 1065 Area site in 2007.

Please do not hesitate to call me at (415) 561-4259 with any questions.

Sincerely,

Craig Cooper
Environmental Remediation Program Manager
THE PRESIDIO TRUST

Enclosure: Final CAP, Building 1065 Area

CC: Brian Ullensvang, NPS Robert Boggs, DTSC
Doug Kern, RAB Mark Youngkin, RAB (CD only)

Final
Corrective Action Plan
Building 1065 Area
Presidio of San Francisco, California

Prepared for

The Presidio Trust
67 Martinez Street, P.O. Box 29052
San Francisco, California 94129-0052

MACTEC Project No. 4089030004 00114

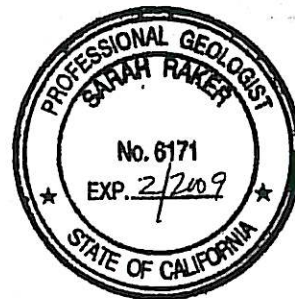


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By NLH with permission



January 24, 2007



MACTEC

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- Two soil samples were collected from the north and south excavation sidewalls (1047EX100[8.5] and 1047EX101[7.0]);
- A third soil confirmation sample (1047EX102[2.5]) was collected from the bottom of the product line trench; and
- One grab groundwater samples were collected from the excavation (1047GG100).

Excavation soil confirmation sample results were either non-detect or were below cleanup levels for TPHg, TPHss, VOCs, and lead. Based on the soil excavation confirmation sampling results which showed TPHg, TPHss, BTEX, MtBE, and lead as nondetect or below cleanup levels, it appears that UST 1047.4 has not significantly impacted soil in this area.

2.5.1.3 Building 1040 and Area between Buildings 1040 and 1063

This area contains the following potential source areas:

- Former Building 1040 AST and FDS lines (FDS line segment BR8-1);
- Incinerator, Maintenance, and Paint Shop at Building 1065;
- Hot Well/Sump Adjacent to Building 1062; and
- Former Building 1065 USTs.

The incinerator, maintenance, and paint shop at Building 1065, hot well/sump at Building 1062, the Former Building 1065 USTs, and some of the former FDS lines fell within the boundary of the Phase I IA excavation (Section 2.3.2). Accordingly, contaminated soil and groundwater associated with these potential source areas were removed from the site during the Phase I IA. Confirmation sampling for TPHg, TPHd, BTEX, and Title 22 metals showed that contaminant concentrations remaining in soil in these areas met cleanup levels. Confirmation sampling did not include analysis for dioxins and furans because samples from soil borings drilled in 2002 in the vicinity of the former incinerator (1065SB119, -107, and -108) were analyzed for dioxins and furans and calculated 2,3,7,8-tetrachlorodibenzo-p-dioxin-toxicity equivalent (TCDD-TE) concentrations for samples collected from those borings did not exceed the cleanup level for tetrachlorodibenzo-p-dioxin (MACTEC, 2003a). Because dioxin and furan concentrations in shallow soil were below the cleanup level, there appears to be no significant impact to soil from past use of the incinerator at Building 1065. Cleanup levels applicable to this area are human health and groundwater quality assuming that petroleum contamination is within 5 feet of groundwater. The following locations contain chemicals at concentrations exceeding cleanup levels:

- 1065PZ1A - Benzo(a)pyrene at 0.11 mg/kg at 5.5 feet bgs;
- 1065SB115 - Benzo(a)pyrene at 0.081 and 0.12 mg/kg at 2.5 and 6.5 feet bgs, respectively;
- 1065SB135 - Cadmium at 2.1 mg/kg, zinc at 85 mg/kg; cadmium at 2.5 mg/kg and benzene at 0.052 mg/kg at 8 feet bgs; and cadmium at 2.4 mg/kg at 12 feet bgs;
- 1065MW9A - TPHg at 5,100 mg/kg, TPHfo at 1,100 mg/kg, TPHd at 190 mg/kg, benzene at 0.126 mg/kg, and lead at 120 mg/kg at 3.5 feet bgs; and benzene at 0.025 mg/kg at 6 feet bgs;

- 1065SB117 - TPHfo at 290 mg/kg and unknown diesel range hydrocarbons at 2,000 mg/kg at 7.7 feet bgs;
- 1065SB141 - Lead at 630 mg/kg at 4.0 feet bgs; TPHg at 30,000 mg/kg, benzene at 2.4 mg/kg, ethylbenzene at 28 mg/kg, toluene at 3.7 mg/kg, 2-hexanone at 730 mg/kg at 6.5 feet bgs;
- 1065SB143 - TPHfo at 300 mg/kg and lead at 800 mg/kg at 3.5 feet bgs; arsenic at 6.1 mg/kg and lead at 3,600 mg/kg at 6.5 feet bgs;
- 1065SB140 - Arsenic at 6.4 mg/kg at 3.5 feet; and
- Excavation Confirmation Sample 1062EX115 - TPHd at 150 mg/kg and TPHfo at 360 mg/kg at 3.5 feet bgs.

Isoconcentration contours for TPH in soil (Plates 9 and 10) show three areas of petroleum hydrocarbon contamination (1) beneath Building 1063 (1065SB141 and 1065SB143) in unsaturated-capillary fringe (3.5 to 4.0 feet bgs) and saturated soil samples (6.5 feet bgs), (2) between the Phase I IA excavation and Building 1063 (1062EX115) in unsaturated soil at 3.5 feet bgs, and (3) adjacent to and below the west side of Building 1040 (1065SB117) in saturated soil at 7.7 feet bgs. Contamination in each of these three areas is further discussed below.

- 1) Petroleum hydrocarbon contaminated soil beneath Building 1063 is likely the downgradient extent of a contaminant plume that extended north (downgradient) of the former Building 1065 USTs. The petroleum hydrocarbons detected at this location could also be from past releases from the former FDS lines that ran east-west along Birmingham Road and also ran north-south between Buildings 1040 and 1063 (un-named FDS segment).
- 2) Petroleum hydrocarbon contaminated soil at confirmation sample 1062EX115 is likely the result of a release from the former FDS line that ran along Birmingham Road.
- 3) Petroleum hydrocarbons detected in the soil sample at Boring 1065SB117 on the west side of Building 1040 may be from past leaks in the former FDS lines (BR8-1) that entered the building or from the former AST located immediately west of Building 1040.

The only PAH detected above cleanup levels in this area was benzo(a)pyrene in soil samples from 1065SB115 and 1065PZ1A. These exceedances were not associated with TPH above cleanup levels. Both of these borings are north of Building 1063 near the Fill Site 6B. It is possible that the benzo(a)pyrene detected in soil in this area may be associated with fill material (e.g., asphalt debris in the fill) or may be from residual petroleum hydrocarbons related to the adjacent hydrocarbon plume.

Metals detected at concentrations exceeding cleanup levels included, cadmium (2.1 to 2.5 mg/kg), arsenic (6.1 to 6.4 mg/kg), and lead (630 to 800 mg/kg). Metals may be related to contaminants in the fill or from metals associated with fuels, motor oil, and vehicle maintenance activities at former Building 1065.

2.5.1.4 Building 1027

This area contains the following potential source areas:

- Former fuel oil UST.



- EXPLANATION**
- MONITORING WELL
 - PIEZOMETER
 - HYDROPUNCH
 - SOIL BORING
 - BUILDING NUMBER
 - EXISTING STRUCTURE
 - STRUCTURE PREVIOUSLY REMOVED
 - LOCATION OF FORMER FUEL DISTRIBUTION PIPELINE
 - FENCE
 - FORMER EXCAVATION BOUNDARY
 - BUILDING 1065 AREA SITE BOUNDARY
 - POTENTIAL SOURCE AREAS
 - MACTEC 10-FOOT SOIL BORING - SOIL SAMPLES ONLY
 - MACTEC 25-FOOT SOIL BORING - SOIL AND GROUNDWATER SAMPLES
 - MACTEC 40-FOOT SOIL BORING - SOIL AND GROUNDWATER SAMPLES
 - MACTEC GROUNDWATER MONITORING WELL PAIR (SHALLOW AND INTERMEDIATE GROUNDWATER ZONES)
 - TEST PIT LOCATION
 - TEST PIT OR EXCAVATION SAMPLE LOCATION
 - GRAB GROUNDWATER SAMPLE LOCATION
 - GEOPHYSICAL ANOMALY INDICATIVE OF BURIED METAL
 - POT HOLE EXCAVATION LIMITS
 - AREAS OF PREVIOUS CORRECTIVE ACTION
 - TOPOGRAPHIC CONTOUR, FEET NGVD29
 - NO PIEZOMETER INSTALLED AT 1065PZ0A; ONLY SOIL SAMPLES COLLECTED AND ANALYZED
 - FRESHWATER ECOLOGICAL PROTECTION ZONE
 - BUFFER ZONE ECOLOGICAL CLEANUP LEVEL
 - PHASE I INTERIM ACTION EXCAVATION
 - BENZENE ISOCONCENTRATION CONTOUR (µg/L)
 - TPH GASOLINE ISOCONCENTRATION CONTOUR (µg/L)

Station ID		Sample Date	
1065SB113	TPH Gasoline	8/13/03	
Analyte		Detected Concentration in µg/L	

- NOTES:**
- PREVIOUS SAMPLE LOCATIONS AND RESULTS THAT FELL WITHIN BOUNDARIES OF CORRECTIVE ACTION AREA (HORIZONTAL AND VERTICAL) ARE NOT SHOWN.
 - DATA SHOWN ARE FROM THE FIRST QUARTER 2004 GROUNDWATER SAMPLING EVENT AND MACTEC 2002 AND 2003 INVESTIGATIONS.

DRAWN: CN		PROJECT NO: 4089030004 00114	
CHECKED: NM		APPROVED: MJH	
DATE: 1/24/2007		DATE: 1/24/2007	
NO	DATE	REVISIONS	BY
			CHK



CORRECTIVE ACTION PLAN

BUILDING 1085 AREA
PRESIDIO OF SAN FRANCISCO
SAN FRANCISCO, CALIFORNIA

**TPH as Gasoline and Benzene
in Shallow Groundwater**

DRAWING	11
SHEET	OF
REVISION NUMBER	
DATE	1/24/2007



- EXPLANATION**
- MONITORING WELL
 - PIEZOMETER
 - HYDROPUNCH
 - SOIL BORING
 - BUILDING NUMBER
 - EXISTING STRUCTURE
 - STRUCTURE PREVIOUSLY REMOVED
 - LOCATION OF FORMER FUEL DISTRIBUTION PIPELINE
 - FENCE
 - FORMER EXCAVATION BOUNDARY
 - BUILDING 1065 AREA SITE BOUNDARY
 - POTENTIAL SOURCE AREAS
 - MACTEC 10-FOOT SOIL BORING - SOIL SAMPLES ONLY
 - MACTEC 25-FOOT SOIL BORING - SOIL AND GROUNDWATER SAMPLES
 - MACTEC 40-FOOT SOIL BORING - SOIL AND GROUNDWATER SAMPLES
 - MACTEC GROUNDWATER MONITORING WELL PAIR (SHALLOW AND INTERMEDIATE GROUNDWATER ZONES)
 - TEST PIT LOCATION
 - TEST PIT OR EXCAVATION SAMPLE LOCATION
 - GRAB GROUNDWATER SAMPLE LOCATION
 - GEOPHYSICAL ANOMALY INDICATIVE OF BURIED METAL
 - POTHOLE EXCAVATION LIMITS
 - AREAS OF PREVIOUS CORRECTIVE ACTION
 - NO PIEZOMETER INSTALLED AT 1065PZ0A; ONLY SOIL SAMPLES COLLECTED AND ANALYZED
 - FRESHWATER ECOLOGICAL PROTECTION ZONE
 - BUFFER ZONE ECOLOGICAL CLEANUP LEVEL
 - PHASE I INTERIM ACTION EXCAVATION
 - ESTIMATED LIMITS OF FILL AREAS WITHIN FILL SITE 6B
 - LOCATION OF CLEANUP LEVEL EXCELLENCE
- Station ID
- Sample Depth in Feet
- Detected Concentration in mg/kg
- Analyte
- Res Background Metals Concentration
- Eco Ecological Cleanup Level
- GW Cleanup Level for Protection of Groundwater
- Res Residential Cleanup Level

NOTE:
PREVIOUS SAMPLE LOCATIONS AND RESULTS THAT FELL WITHIN BOUNDARIES OF CORRECTIVE ACTION AREA (HORIZONTAL AND VERTICAL) AND WERE REMOVED BY EXCAVATION ARE NOT SHOWN.

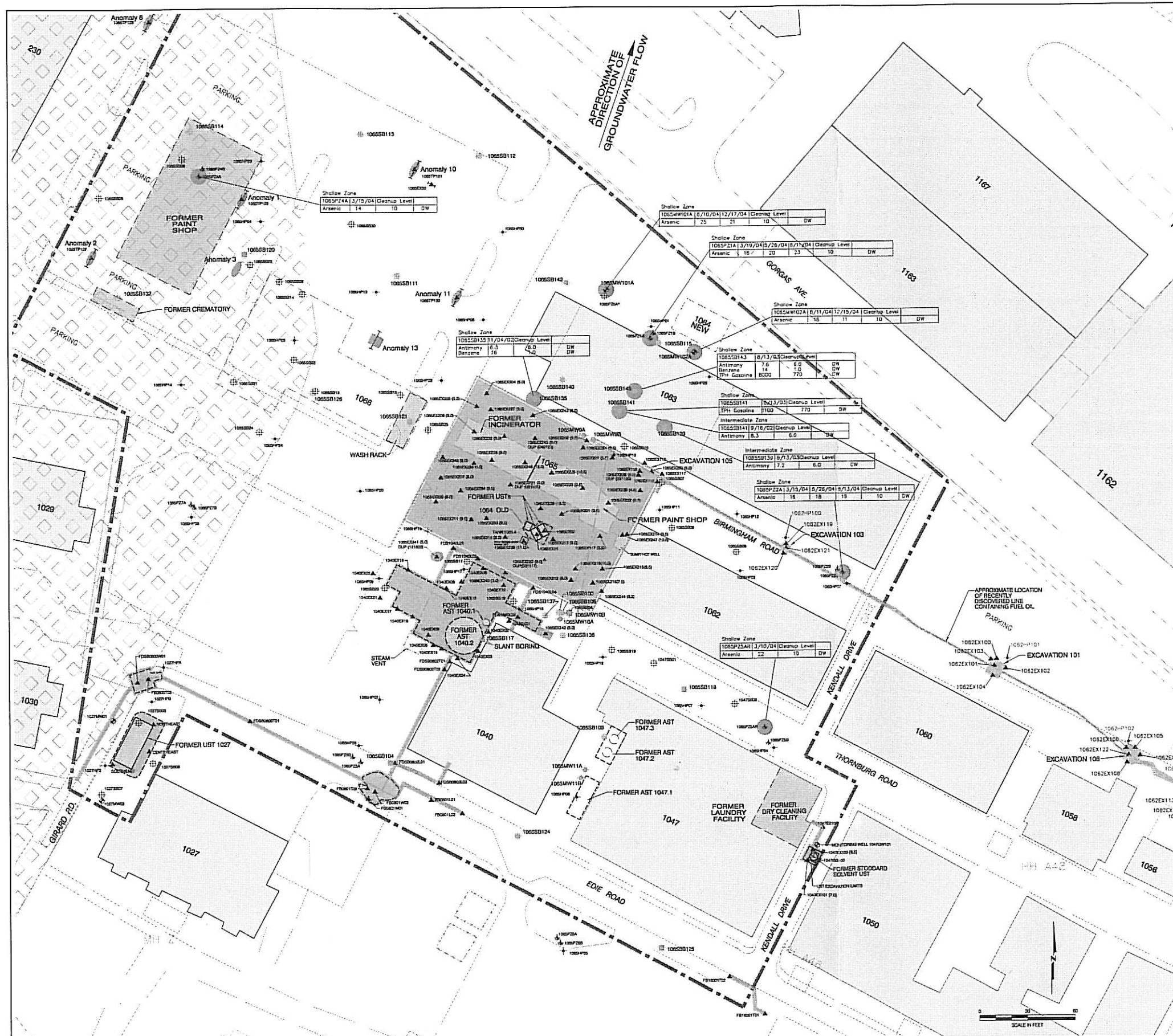
DRAWN: PCB		PROJECT NO: 4089030004 001 14	
CHECKED: NM		APPROVED: MJH	
DATE: 1/24/2007		DATE: 1/24/2007	
NO	DATE	REVISIONS	BY CHK



CORRECTIVE ACTION PLAN
BUILDING 1065 AREA
PRESIDIO OF SAN FRANCISCO
SAN FRANCISCO, CALIFORNIA

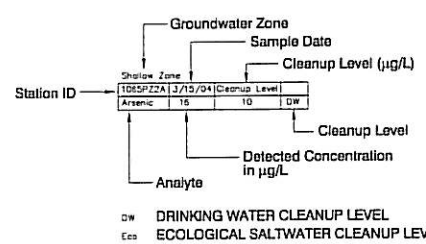
**Organic Compounds and Metals
in Soil Above Cleanup Levels**

DRAWING	12
SHEET	OF
REVISION NUMBER	
DATE	1/24/2007



EXPLANATION

- MONITORING WELL
- PIEZOMETER
- HYDROPUNCH
- SOIL BORING
- BUILDING NUMBER
- EXISTING STRUCTURE
- STRUCTURE PREVIOUSLY REMOVED
- LOCATION OF FORMER FUEL DISTRIBUTION PIPELINE
- FENCE
- FORMER EXCAVATION BOUNDARY
- BUILDING 1065 AREA SITE BOUNDARY
- POTENTIAL SOURCE AREAS
- MACTEC 10-FOOT SOIL BORING - SOIL SAMPLES ONLY
- MACTEC 25-FOOT SOIL BORING - SOIL AND GROUNDWATER SAMPLES
- MACTEC 40-FOOT SOIL BORING - SOIL AND GROUNDWATER SAMPLES
- MACTEC GROUNDWATER MONITORING WELL PAIR (SHALLOW AND INTERMEDIATE GROUNDWATER ZONES)
- TEST PIT LOCATION
- TEST PIT OR EXCAVATION SAMPLE LOCATION
- GRAB GROUNDWATER SAMPLE LOCATION
- GEOPHYSICAL ANOMALY INDICATIVE OF BURIED METAL
- POTHOLE EXCAVATION LIMITS
- AREAS OF PREVIOUS CORRECTIVE ACTION
- NO PIEZOMETER INSTALLED AT 1065P20A; ONLY SOIL SAMPLES COLLECTED AND ANALYZED
- FRESHWATER ECOLOGICAL PROTECTION ZONE
- BUFFER ZONE ECOLOGICAL CLEANUP LEVEL
- PHASE I INTERIM ACTION EXCAVATION
- LOCATION OF CLEANUP LEVEL EXCEEDANCE



NOTES:

- WELL AND PIEZOMETER DATA ARE FROM THE FIRST, SECOND AND THIRD QUARTER 2004, SAMPLING EVENT AND HYDROPUNCH DATA ARE FROM MACTEC 2004 AND 2003 FIELD INVESTIGATIONS.
- PREVIOUS SAMPLE LOCATIONS AND RESULTS THAT FELL WITHIN BOUNDARIES OF CORRECTIVE ACTION AREA (HORIZONTAL AND VERTICAL) AND WERE REMOVED BY EXCAVATION ARE NOT SHOWN.

CORRECTIVE ACTION PLAN

BUILDING 1065 AREA
PRESIDIO OF SAN FRANCISCO
SAN FRANCISCO, CALIFORNIA

Organic Compounds and Metals
in Groundwater Exceeding Cleanup Levels

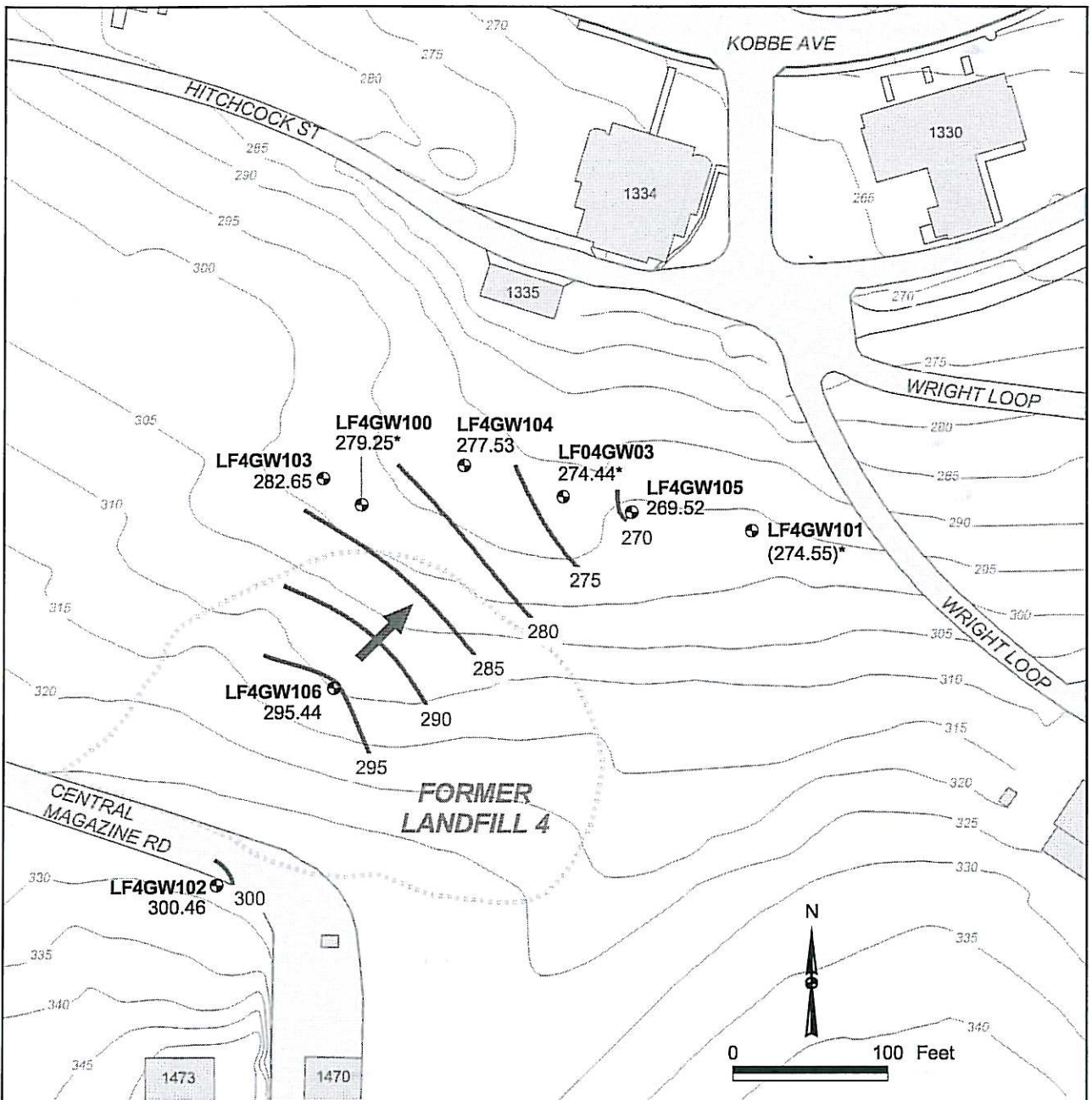
DRAWING	13
SHEET	OF
REVISION NUMBER	
DATE	1/24/2007

NO.	DATE	REVISIONS	BY	CHK	DATE	DRAWN: PCB	CHECKED: NM	PROJECT NO: 4089030004 00114	APPROVED: MJH
					1/24/2007				



Appendix F-2

FDS Section BR5-2 Historical Documents



LEGEND

- Approximate Direction of Groundwater Flow
- Groundwater Contour (Contour Interval : 5 ft)
- Former Landfill 4 Excavation Boundary
- Topographic Contour (Contour Interval : 5 ft)

- LF4GW104** Groundwater Monitoring Well
277.53 February 2007 Groundwater Elevations
(274.55) Value indicates bottom of casing elevation in feet PLLW
* LF4GW100, LF4GW101 and LF04GW03 were not used for groundwater contouring because they are screened in shallower lithologic units.
- Building and Number

Notes:
Groundwater elevation data collected on 26 February 2007.

Horizontal Datum: NAD 27, CA State Plane Coordinates, Zone 3, feet

Vertical Datums: (groundwater) Presidio Lower Low Water (ft. PLLW) (topography) North American Vertical Datum, NAVD88

LANDFILL 4 SITE PLAN AND 26 FEBRUARY 2007 GROUNDWATER ELEVATION MAP

Treadwell&Rollo



Presidio Trust

34 Graham Street
P.O. Box 29052
San Francisco, CA
94129-0052
415/561-5300
fax 561-5315
October 2007

FIGURE A-8-1

Appendix F-3

FDS Section BR13-2 Historical Documents

ID 3300
CMT 3/10/01 GWS
-3

UST/FDS 234

DRAFT
ROUND 1 GROUP 2 MINI-CORRECTIVE ACTION PLANS
PETROLEUM SITES CLEANUP PROGRAM

PRESIDIO OF SAN FRANCISCO, CALIFORNIA

Contract No. DACA05-93-C-0069
Modifications 90, 128 and 145
Montgomery Watson File No. 1212010.40091885

Prepared For:

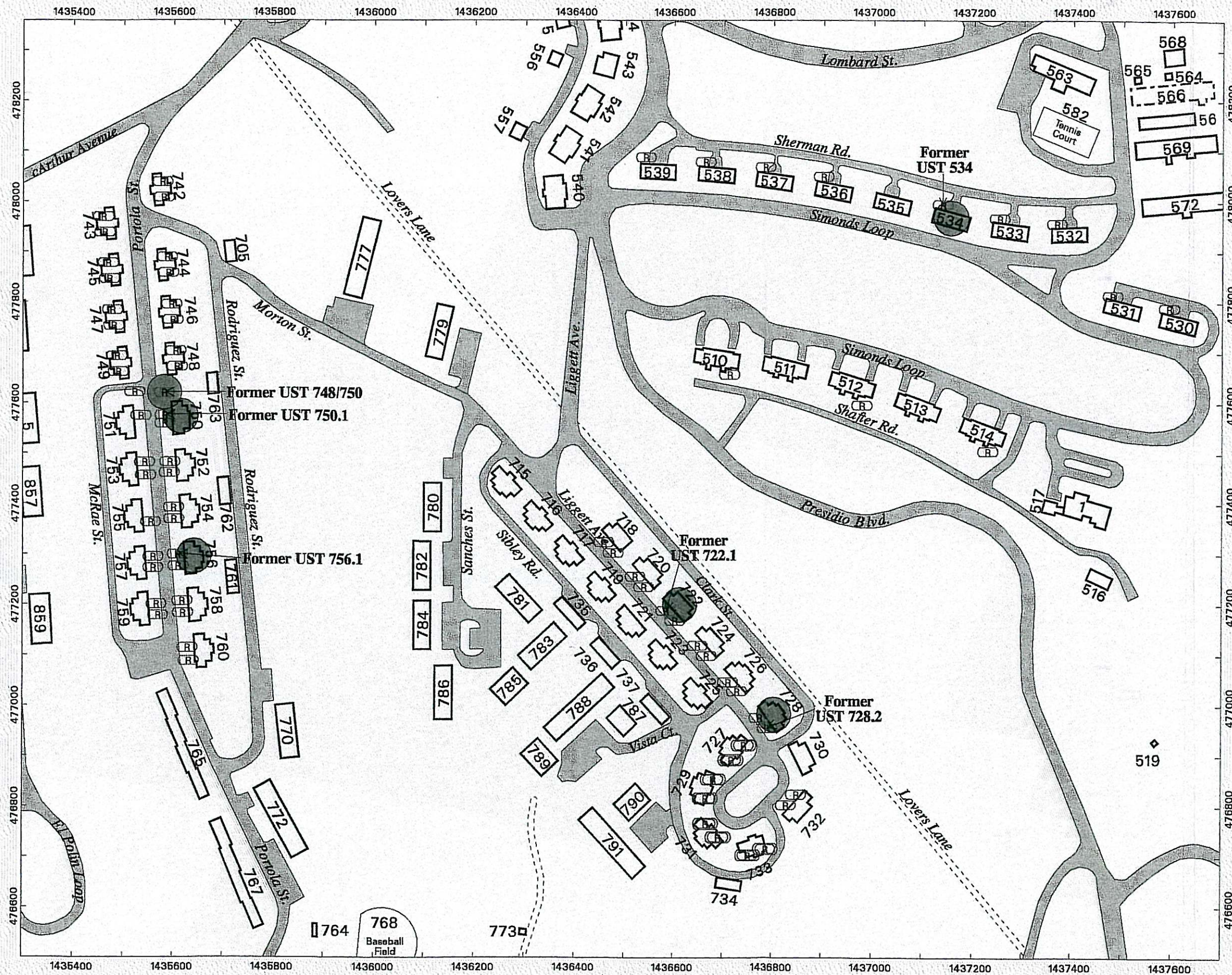
U.S. Army Corps of Engineers
Sacramento District
Sacramento, California

Prepared By:

Montgomery Watson
1340 Treat Blvd.
Walnut Creek, CA 94596

May 1999

mini-cap-sit-a-gra mini-cap-sit-a-gra 05/07/99, 11:21:16, Fri



Legend:

- Pavement
- Building and Number
- Removed Structure (except tanks)
- Petroleum Sites
- Aboveground Storage Tank (R = removed)
(Size and orientation not representative)
- Underground Storage Tank (R = removed)
(Size and orientation not representative)

Notes: Horizontal Datum: NAD 27,
CA State Plane Coordinates,
Zone 3, feet



MONTGOMERY WATSON

PRESIDIO OF SAN FRANCISCO CALIFORNIA

DRAFT ROUND 1 GROUP 2

MINI-CORRECTIVE ACTION PLANS

PETROLEUM SITES CLEANUP PROGRAM

PROPOSED LOCATIONS OF ADDITIONAL SAMPLING

FIGURE 1

DRAFT MINI-CORRECTIVE ACTION PLAN
UST Number 748/750
PRESIDIO OF SAN FRANCISCO, CALIFORNIA

TANK DIMENSIONS AND PLACEMENT

Tank Volume:	3000 gallons	Depth to Top of Tank:	3 ft.
Tank Diameter:	Unknown	Groundwater Area^a:	Northeastern
		Groundwater Basin^a:	Marina
Tank Former Contents:	Fuel Oil	Elevation Difference Between Ground Surface and Basement Floor:	N/A
Tank Location:	Outdoor	Depth to Groundwater	50 ft. bgs (est.)

TANK MANAGEMENT INFORMATION

Date Tank Identified	1990	Date Site Characterization Conducted	1994
Date Tank Removed	8/17/93	Soil Contamination Present	Yes
Date Tank Closure Report Submitted	09/93	Groundwater Contamination Present:	No

TANK CLOSURE SUMMARY^d**Tank Removal Confirmation Sampling:**

- Four confirmation samples were collected from the excavation site at depths ranging from 6.5 to 10 ft. bgs.
- Petroleum hydrocarbons (diesel range) were detected in all samples at concentrations ranging from 1.9 to 610 mg/kg. These levels are lower than the soil action level (SAL) of 1,380 mg/kg established in the Site Cleanup Requirements (SCRs)^b.
- BTEX compounds were not detected in any of the samples.
- Leaks were observed at the northern end of the tank and at the connection to the product line during removal.

Additional Investigation (AUSTI Results):

- Fifteen soil borings were drilled in the vicinity of the excavation to maximum depths ranging from 34.5 to 70 ft. bgs.
- Soil samples were collected from 3.5 to 54.5 ft. bgs.
- Petroleum hydrocarbons (diesel range) were detected in fifteen samples at concentrations up to 10,000 mg/kg. The concentrations were all less than appropriate action levels.
- Ethylbenzene, toluene, and total xylenes were detected in a few samples, but at concentrations approximately one order of magnitude less than the applicable soil action levels.
- The deepest contamination detected in the soil borings was at 21.5 ft. bgs.
- Groundwater was encountered in some borings at an approximate depth of 50 ft. bgs.
- One HydroPunch groundwater sample was also collected at 55 ft. bgs. No fuels were detected in this sample.

SITE-SPECIFIC CHARACTERISTICS

Surface water within 50 ft.?:

Terrestrial Receptors Present?:

Fuel Products of Concern:

Within Aquatic Protection Zone?:

Fuel Product Detected:

0-2 ft. below ground surface?

No Data

2-3 ft. below ground surface?

No Data

3-10 ft. below ground surface?

Yes

10 ft. below ground surface - >5 ft.

above GW Table?

Yes

<=5 ft. above GW Table?

No

SITE-SPECIFIC SOIL ACTION LEVELS (Based on SCR Order No. 96-070) ^b :			
Analyte	Action Level (mg/kg)	Criteria: Protection of	Fuel Product Detected? Max. Detected Concentration
1. Depth Range: 0-3 ft. bgs			No Data
Petroleum Hydrocarbons			
Diesel Range (C ₁₂ -C ₂₄)	700	Ecological Receptors, Terrestrial	
Fuel Oil Range (C ₂₄ -C ₃₆)	980	Ecological Receptors, Terrestrial	
Total Carcinogenic PAHs	5.6	Human Health, Residential	
2. Depth Range: 3-10 ft. bgs			Yes
Petroleum Hydrocarbons			
Diesel Range (C ₁₂ -C ₂₄)	1,380	Human Health, Residential	1,700 mg/kg
Fuel Oil Range (C ₂₄ -C ₃₆)	1,900	Human Health, Residential	
Total Carcinogenic PAHs	5.6	Human Health, Residential	
3. Depth Range: 10 ft. bgs->5 ft. above Groundwater Table			Yes
Petroleum Hydrocarbons			
Diesel Range (C ₁₂ -C ₂₄)	15,000	Water Quality, Residual Saturation	10,000 mg/kg
Fuel Oil Range (C ₂₄ -C ₃₆)	15,000	Water Quality, Residual Saturation	
Total Carcinogenic PAHs	-	Not Applicable	
4. Depth Range: <=5 ft. above Groundwater Table			No
Petroleum Hydrocarbons			
Diesel Range (C ₁₂ -C ₂₄)	115	Water Quality, Drinking Water	<1.2 mg/kg
Fuel Oil Range (C ₂₄ -C ₃₆)	160	Water Quality, Drinking Water	
Total Carcinogenic PAHs	111	Water Quality, Drinking Water	

ALTERNATIVES ASSESSMENT (See Figure 5-5, Basewide CAP)^c AND MAJOR COST ESTIMATING ASSUMPTIONS

ALTERNATIVE ASSESSMENT

- All fuel concentrations are less than the appropriate action levels. Therefore, no corrective action is required for this site.

SAMPLING AND MONITORING

<u>Sampling Activity</u>	<u>Analytes and Methods (Checked if Required)</u>
Lab. Sampling (soil samples)	BTEX (EPA 8020) <input type="checkbox"/> TPH-D (EPA 8015) <input type="checkbox"/>
Lab. Sampling (HydroPunch sample)	BTEX (EPA 8020) <input type="checkbox"/> TPH-D (EPA 8015) <input type="checkbox"/>
Soil Treatment Process Sampling	Not applicable

ANTICIPATED CORRECTIVE ACTION SCHEDULE**Corrective Action Start Date:** N/A**Corrective Action Duration:** N/A**References**

- ^a Montgomery Watson, 1995. Attachment B of Fuel Product Action Level Development Report. Presidio of San Francisco, California. Prepared for the U.S. Army Corps of Engineers, Sacramento District. October.
- ^b Regional Water Quality Control Board (RWQCB), 1996. Site Cleanup Requirements for Petroleum-Impacted Soils. Presidio of San Francisco, California. Order No. 96-070. San Francisco Bay Region. May.
- ^c Montgomery Watson, 1996. Final Basewide Corrective Action Plan. Presidio of San Francisco, California. Prepared for U.S. Army Corps of Engineers, Sacramento District. January.
- ^d Montgomery Watson, 1996. Additional Underground Storage Tank Investigation Report. Volume I. Presidio of San Francisco, California. Prepared for the U.S. Army Corps of Engineers, Sacramento District. November.

ATTACHMENTS

EXCERPTS FROM ADDITIONAL UNDERGROUND STORAGE TANK INVESTIGATION (AUSTI) REPORTS

TABLE 1
SOIL BORING AND HYDROPUNCH SUMMARY
BUILDING 748/750
PRESIDIO OF SAN FRANCISCO, CALIFORNIA
 (Page 1 of 4)

Soil Boring Number	Ground Surface Elevation (ft LLW)	Installation Date	Soil Sample Depth (ft bgs)	Total Depth (ft bgs)
748SB1A	92.9	1/12/95	3.5	34.5
			9.5	
			14	
			18.5	
			23	
			33.5	
748SB2	92.6	8/18/94	8.25	49.5
			10	
			14.5	
			20.5	
			47	
748SB2A	96.1	1/12/95	3.5	35
			8	
			14	
			18.5	
			23	
748SB3	93.3	8/25/94	34	60.5
			6.5	
			14	
			20	
748SB3A	92.9	1/17/95	30.5	56
			5	
			9.5	
			14	
			20	
			24.5	
			29	
			35	
			39.5	
			44	
			50	
			54.5	

TABLE 1
SOIL AND HYDROPUNCH BORING SUMMARY
BUILDING 748/750
PRESIDIO OF SAN FRANCISCO, CALIFORNIA
 (Page 2 of 4)

Soil Boring Number	Ground Surface Elevation (ft LLW)	Installation Date	Soil Sample Depth (ft bgs)	Total Depth (ft bgs)
748SB5	94.9	9/14/95	10	60
			15	
			20	
			25	
			30	
			35	
			40	
			45	
			48	
748SB7	91.7	9/16/94	None	70
748SB8	95.4	9/19/94	11	40
			15.5	
			18.5	
			23	
			32	
748SB9	90.8	10/17/94	5	59
			9.5	
			15.5	
			20	
			24.5	
			29.5	
			35	
			39.5	
748SB10	92.4	10/18/94	45.5	56
			5	
			9.5	
			15.5	
			20	
			24.5	
			30.5	
			35	
			38	
			45.5	

TABLE 1
SOIL BORING AND HYDROPUNCH SUMMARY
BUILDING 748/750
PRESIDIO OF SAN FRANCISCO
(Page 3 of 4)

Soil Boring Number	Ground Surface Elevation (ft LLW)	Installation Date	Soil Sample Depth (ft bgs)	Total Depth (ft bgs)
748SB11	94.3	10/18/94	5	60.5
			9.5	
			15.5	
			20	
			24.5	
		10/19/94	30.5	
			35	
			39.5	
			45.5	
748SB12	94.5	10/19/94	5	60
			9	
			14	
			19	
			24	
			29	
			34	
			39	
			44	
748SB13	95.1	10/20/94	5	60.5
			9.5	
			14	
			17	
			21.5	
			24.5	
			29	
			35	
			39.5	
748SB15	94.9	10/27/94	5	55
			10	
			15	
			20	
			25	
			30	
			35	
			40	
			45	

TABLE 1

SOIL BORING AND HYDROPUNCH SUMMARY
BUILDING 748/750
PRESIDIO OF SAN FRANCISCO
 (Page 4 of 4)

Soil Boring Number	Ground Surface Elevation (ft LLW)	Installation Date	Soil Sample Depth (ft bgs)	Total Depth (ft bgs)
748SB16	93.9	10/28/94	5	50
			10	
			15	
			20	
			25	
			30	

HydroPunch Number	Ground Surface Elevation (ft LLW)	Installation Date	Groundwater Sample Depths (ft bgs)	Total Depth (ft bgs)
748DW17	Not Surveyed	11/9/94	55	55

Notes:

ft LLW - feet above Presidio lower low water datum

ft bgs - feet below ground surface

TABLE 2

SOIL ANALYTICAL RESULTS
BUILDING 748/750
PRESIDIO OF SAN FRANCISCO, CALIFORNIA
(Page 1 of 15)

Boring ID:	748SB1A	748SB1A	748SB1A	748SB1A	748SB1A	748SB1A	748SB1A	748SB2
Sample Date:	1/12/95	1/12/95	1/12/95	1/12/95	1/12/95	1/12/95	1/12/95	8/18/94
Depth (feet bgs):	3.5	9.5	14	18.5	23	33.5	8.25	
Total Petroleum Hydrocarbons (mg/kg)								
Petroleum Hydrocarbons (Diesel Range)	<1.2	<1.2	26	<1.3	<1.2	<1.3	290	
BTEX (mg/kg)								
Benzene	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Ethylbenzene	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	0.031	<0.006
Toluene	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Total Xylenes	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	0.049	<0.006
Semivolatile Organic Compounds (mg/kg)								
All Analytes	NA	NA	NA	NA	NA	NA	NA	NA
Metals (mg/kg)								
Arsenic	2.1	3.3	2.7	2.5	1.8	0.73	3.1	0.47
Beryllium	0.36	0.56	0.46	0.27	0.31	<0.21	50.4	11.1
Chromium	70.7	85.0	79.9	79.3	81.4	54.9	17,900	<5.9
Copper	11.8	14.0	10.8	7.6	7.4	4.6	272	<0.12
Iron	17,700	24,500	19,600	20,800	20,800	11,100	34.2	<0.59 (U27)
Lead	<6.1	<5.8	<5.9	<5.8	<5.8	<5.4	47.9	37.2
Manganese	485	467	297	278	206	148		
Mercury	<0.12	<0.12	<0.12	<0.12	<0.12	<0.11		
Nickel	35.6	59.6	52.8	80.3	93.7	54.3		
Selenium	<0.61 (U27)	<0.58 (U27)	<0.59 (U27)	<0.58 (U27)	<0.58 (U27)	<0.54		
Vanadium	49.9	64.3	55.4	52.2	54.0	32.0		
Zinc	28.4	34.3	29.1	29.2	29.1	18.4		
Miscellaneous Parameters (%)								
Percent Moisture	18	14	15	13	13	7	15.7	

TABLE 2

SOIL ANALYTICAL RESULTS
BUILDING 748/750
PRESIDIO OF SAN FRANCISCO, CALIFORNIA
(Page 3 of 15)

Boring ID:	748SB2A	748SB2A	748SB2A	748SB2A	748SB2A	748SB3	748SB3	748SB3	748SB3
Sample Date:	1/12/95	1/12/95	1/12/95	1/12/95	1/12/95	8/25/94	8/25/94	8/25/94	8/25/94
Depth (feet bgs):	14	18.5	23	34	6.5	14	14 (Duplicate)	20	20
Total Petroleum Hydrocarbons (mg/kg)									
Petroleum Hydrocarbons (Diesel Range)	<1.2	<1.1	<1.1	<1.1	<1.1	79	430	10,000	
BTEX (mg/kg)									
Benzene	<0.006	<0.005	<0.006	<0.006	<0.006	<0.006	<0.006	<0.116	
Ethylbenzene	<0.006	<0.005	<0.006	<0.006	<0.006	<0.006	<0.006	<0.116	
Toluene	<0.006	<0.005	<0.006	<0.006	<0.006	<0.006	<0.006	<0.116	
Total Xylenes	<0.006	<0.005	<0.006	<0.006	<0.006	0.008	<0.006	0.12	
Semivolatile Organic Compounds (mg/kg)									
All Analytes	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals (mg/kg)									
Arsenic	3.8	3.9	3.1	1.6	2.6	3.1	2.8	2.3	
Beryllium	0.59	0.33	0.29	<0.23	0.41	0.29	0.39	<0.23	
Chromium	82.5	65.6	67.8	62.6	55.3	72.0	84.3	70.1	
Copper	15.5	6.4	5.9	5.4	11.8	10.6	11.1	6.0	
Iron	26,300	17,000	18,800	14,800	19,300	22,400	21,400	16,300	
Lead	<5.9	<5.4	<5.5	<5.6	9.4	<5.9	<5.9	6.8	
Manganese	471	176	356	209	257	334	378	207	
Mercury	<0.12	<0.11	<0.11	<0.11	<0.12	<0.12	<0.12	<0.11	
Nickel	70.3	71.1	67.8	70.1	33.0	76.1	75.7	55.5	
Selenium	<0.59 (U27)	<0.54 (U27)	<0.55 (U27)	<0.56 (U27)	1.1	0.75	<0.59	<0.57	
Vanadium	68.7	42.0	50.8	34.5	50.8	49.8	57.2	42.7	
Zinc	37.5	24.3	25.9	26.5	33.8	31.8	33.0	25.5	
Miscellaneous Parameters (%)									
Percent Moisture	15	8	9	11	13.9	14.7	15.7	12.3	

TABLE 2

SOIL ANALYTICAL RESULTS
BUILDING 748/750
PRESIDIO OF SAN FRANCISCO, CALIFORNIA
(Page 5 of 15)

Boring ID:	748SB3A	748SB3A	748SB3A	748SB3A	748SB3A	748SB3A	748SB3A	748SB5	748SB5
Sample Date:	1/17/95	1/17/95	1/17/95	1/17/95	1/17/95	1/17/95	1/17/95	9/14/94	9/14/94
Depth (feet bgs):	29	35	39.5	44	50	54.5	10	15	15
Total Petroleum Hydrocarbons (mg/kg)									
Petroleum Hydrocarbons (Diesel Range)	NA	NA	NA	NA	NA	NA	73	120	
BETX (mg/kg)									
Benzene	NA	NA	NA	NA	NA	NA	<0.006	<0.006	
Ethylbenzene	NA	NA	NA	NA	NA	NA	<0.006	<0.006	
Toluene	NA	NA	NA	NA	NA	NA	<0.006	<0.006	
Total Xylenes	NA	NA	NA	NA	NA	NA	<0.006	<0.006	
Semivolatile Organic Compounds (mg/kg)									
All Analytes	NA	NA	NA	NA	NA	NA	NA	NA	NAD
Metals (mg/kg)									
Arsenic	0.76	0.65	0.78	1.0	3.4	2.0	6.2	6.3	
Beryllium	0.22	0.22	0.43	<0.22	<0.23	<0.25	0.34	0.31	
Chromium	70.9	77.6	190	77.0	91.3	69.6	60.2	61.9	
Copper	5.0	4.3	10.0	5.2	6.5	6.1	13.5	15.2	
Iron	15,500	16,600	22,900	17,100	21,000	21,300	22,000	20,800	
Lead	<5.4	<5.6	<6.0	<5.5	<5.8	<6.3	<5.8	<5.9	
Manganese	222	182	330	271	254	324	327	417	
Mercury	<0.11	<0.11	<0.12	<0.11	<0.12	<0.13	<0.12	<0.12	
Nickel	72.4	75.8	192	88.5	99.4	79.7	43.9	52.5	
Selenium	<0.54 (U27)	<0.56	<0.60 (U27)	<0.55 (U27)	<0.58 (U27)	<0.63 (U27)	<0.58 (U27)	<0.59 (U27)	
Vanadium	41.3	44.5	48.0	48.5	55.3	52.6	53.5	53.9	
Zinc	23.7	24.2	44.2	24.3	27.3	32.8	30.9	35.2	
Miscellaneous Parameters (%)									
Percent Moisture	7	11	16	9	14	20	14	15	

TABLE 2

SOIL ANALYTICAL RESULTS
BUILDING 748/750
PRESIDIO OF SAN FRANCISCO, CALIFORNIA
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Boring ID:	748SB8	748SB8	748SB8	748SB8	748SB8	748SB8	748SB8	748SB9	748SB9	748SB9
Sample Date:	9/19/94	9/19/94	9/19/94	9/19/94	9/19/94	9/19/94	9/19/94	10/17/94	10/17/94	10/17/94
Depth (feet bgs):	15.5	15.5 (Duplicate)	18.5	23	32	5	9.5	15.5		
Total Petroleum Hydrocarbons (mg/kg)										
Petroleum Hydrocarbons (Diesel Range)	210	6,300	<1.2	<1.1	<1.1	<1.2	<1.2	<1.2	<1.2	<1.2
BETX (mg/kg)										
Benzene	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Ethylbenzene	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Toluene	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Total Xylenes	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Semivolatile Organic Compounds (mg/kg)										
All Analytes	NAD	NAD	NA	NA	NA	NA	NA	NA	NA	NA
Metals (mg/kg)										
Arsenic	4.5	3.1	3.1	3.8	3.0	2.5	3.6	3.7		
Beryllium	0.40	0.34	<0.22	<0.23	<0.22	0.32	0.51	0.36		
Chromium	74.2	74.6	92.3	59.9	46.0	58.3	67.9	97.0		
Copper	13.8	13.1	6.7	6.0	4.9	12.5	13.3	11.9		
Iron	21,800	24,700	21,600	18,600	14,400	19,400	25,100	25,400		
Lead	<5.9	<5.9	<5.6	<5.7	<5.4	<5.7	<5.8	<5.8		
Manganese	457	410	316	254	193	564	463	357		
Mercury	<0.12	<0.12	<0.11	<0.11	<0.11	<0.11	<0.12	<0.12		
Nickel	72.3	72.8	117	70.5	61.3	37.5	43.4	72.7		
Selenium	<0.59	<0.59 (U27)	<0.56	<0.57	<0.54	<0.57 (U27)	<0.58 (U27)	<0.58 (U27)		
Vanadium	56.6	54.6	45.1	46.6	35.8	51.6	64.4	66.0		
Zinc	35.8	35.3	35.5	26.5	22.4	30.4	39.6	32.4		
Miscellaneous Parameters (%)										
Percent Moisture	15	15	11	12	8	13	15	14		

TABLE 2

SOIL ANALYTICAL RESULTS
BUILDING 748/750
PRESIDIO OF SAN FRANCISCO, CALIFORNIA
(Page 9 of 15)

Boring ID:	748SB10	748SB10	748SB10	748SB10	748SB10	748SB10	748SB10	748SB10	748SB10	748SB10
Sample Date:	10/18/94	10/18/94	10/18/94	10/18/94	10/18/94	10/18/94	10/18/94	10/18/94	10/18/94	10/18/94
Depth (feet bgs):	9.5	15.5	20	24.5	30.5	35	38	45.5		
Total Petroleum Hydrocarbons (mg/kg)										
Petroleum Hydrocarbons (Diesel Range)	<1.2	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1	<1.2	<1.4	<1.2
BTEX (mg/kg)										
Benzene	<0.006	<0.006	<0.006	<0.005	<0.005	<0.005	<0.005	<0.006	<0.007	<0.006
Ethylbenzene	<0.006	<0.006	<0.006	<0.005	<0.005	<0.005	<0.005	<0.006	<0.007	<0.006
Toluene	<0.006	<0.006	<0.006	<0.005	<0.005	<0.005	<0.005	<0.006	<0.007	<0.006
Total Xylenes	<0.006	<0.006	<0.006	<0.005	<0.005	<0.005	<0.005	<0.006	<0.007	<0.006
Semivolatile Organic Compounds (mg/kg)										
All Analytes	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals (mg/kg)										
Arsenic	4.1	4.1	2.6	3.6	1.4	3.0	5.1	1.7		
Beryllium	0.32	<0.22	<0.22	<0.22	<0.21	<0.22	0.63	<0.24		
Chromium	83.4	95.3	60.5	66.1	76.5	97.5	230	64.4		
Copper	9.5	6.8	5.0	5.2	5.1	7.0	22.3	5.4		
Iron	23,200	23,500	15,400	17,300	20,500	19,600	45,400	15,200		
Lead	<5.8	<5.6	<5.4	<5.6	<5.3	<5.5	<6.7	<5.9		
Manganese	279	294	193	172	194	224	283	226		
Mercury	<0.12	<0.11	<0.11	<0.11	<0.11	<0.11	<0.13	<0.12		
Nickel	100	87.8	60.0	80.3	61.4	104	300	81.1		
Selenium	<0.58 (U27)	<0.56	<0.54	<0.56	<0.53	<0.55	<0.67 (U27)	<0.59		
Vanadium	50.1	58.2	39.3	40.8	65.2	54.1	85.5	39.0		
Zinc	28.1	29.1	21.6	22.6	23.9	23.8	59.7	23.4		
Miscellaneous Parameters (%)										
Percent Moisture	14	11	7	10	6	10	26	16		

TABLE 2
SOIL ANALYTICAL RESULTS
BUILDING 748/750
PRESIDIO OF SAN FRANCISCO, CALIFORNIA
(Page 11 of 15)

Boring ID:	748SB11	748SB11	748SB12	748SB12	748SB12	748SB12	748SB12	748SB12	748SB12
Sample Date:	10/19/94	10/19/94	10/19/94	10/19/94	10/19/94	10/19/94	10/19/94	10/19/94	10/19/94
Depth (feet bgs):	39.5	45.5	5	9	14	19	24	29	
Total Petroleum Hydrocarbons (mg/kg)									
Petroleum Hydrocarbons (Diesel Range)	<1.2	<1.1	<1.2	<1.2	<1.2	<1.1	<1.1	<1.1	
BETX (mg/kg)									
Benzene	<0.006	<0.006	<0.006	<0.006	<0.006	<0.005	<0.006	<0.005	
Ethylbenzene	<0.006	<0.006	<0.006	<0.006	<0.006	<0.005	<0.006	<0.005	
Toluene	<0.006	<0.006	<0.006	<0.006	<0.006	<0.005	<0.006	<0.005	
Total Xylenes	<0.006	<0.006	<0.006	<0.006	<0.006	<0.005	<0.006	<0.005	
Semivolatile Organic Compounds (mg/kg)									
All Analytes	NA	NA	NA	NA	NA	NA	NA	NA	NA
Metals (mg/kg)									
Arsenic	2.9	1.0	4.2	4.2	3.9	3.6	2.7	1.7	
Beryllium	<0.22	<0.21	0.44	0.59	0.41	<0.21	<0.22	<0.22	
Chromium	55.8	94.9	84.3	74.2	125	88.5	99.5	45.5	
Copper	5.4	5.1	15.1	14.1	11.6	5.0	6.7	3.8	
Iron	16,300	15,500	30,100	25,600	33,800	16,600	20,600	12,300	
Lead	<5.6	<5.4	<6.0	<5.9	<5.8	<5.3	<5.6	<5.4	
Manganese	167	210	562	431	338	169	266	144	
Mercury	<0.11	<0.11	<0.12	<0.12	<0.12	<0.11	<0.11	<0.11	
Nickel	82.1	87.6	49.9	54.1	116	58.0	105	54.8	
Selenium	<0.56 (U27)	<0.54 (U27)	<0.60 (U27)	<0.59 (U27)	<0.58 (U27)	<0.53 (U27)	<0.56 (U27)	<0.54 (U27)	
Vanadium	39.4	42.4	74.4	63.8	83.4	46.6	52.9	29.5	
Zinc	21.3	24.6	44.8	37.5	39.0	21.8	25.6	19.0	
Miscellaneous Parameters (%)									
Percent Moisture	10	7	16	15	14	5	11	8	

TABLE 2

SOIL ANALYTICAL RESULTS
BUILDING 748/750
PRESIDIO OF SAN FRANCISCO, CALIFORNIA
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Boring ID:	748SB13	748SB13	748SB13	748SB13	748SB13	748SB13	748SB13	748SB15
Sample Date:	10/20/94	10/20/94	10/20/94	10/20/94	10/20/94	10/20/94	10/20/94	10/27/94
Depth (feet bgs):	17 (Duplicate)	21.5	24.5	29	35	39.5	45.5	5
Total Petroleum Hydrocarbons (mg/kg)	550	1,100	<1.1	<1.1	<1.2	<1.2	<1.1	<1.1
Petroleum Hydrocarbons (Diesel Range)								
BETX (mg/kg)								
Benzene	<0.006	<0.006	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006
Ethylbenzene	<0.006	<0.006	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006
Toluene	<0.006	<0.006	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006
Total Xylenes	<0.006	<0.006	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006
Semivolatile Organic Compounds (mg/kg)								
All Analytes	NA	NA	NA	NA	NA	NA	NA	NA
Metals (mg/kg)								
Arsenic	5.4	3.8	2.7	2.3	1.1	3.0	0.90	3.4
Beryllium	0.32	0.33	<0.22	<0.22	<0.23	<0.23	<0.21	0.53
Chromium	74.1	78.2	65.7	68.5	63.5	55.1	68.5	63.0
Copper	13.2	8.6	5.0	5.7	3.9	5.7	5.0	13.5
Iron	26,600	21,700	14,800	16,600	12,500	15,600	12,900	23,500
Lead	<5.9	<6.0	<5.4	<5.5	<5.6	<5.7	<5.4	<6.0
Manganese	498	231	180	236	173	228	160	443
Mercury	<0.12	<0.12	<0.11	<0.11	<0.11	<0.11	<0.11	<0.12 (U9)
Nickel	61.5	85.5	50.9	68.1	60.7	84.8	76.0	43.8
Selenium	<0.59 (U27)	<0.60	<0.54	<0.55	<0.56	<0.57	<0.54	<0.60 (U27,U9)
Vanadium	61.6	47.0	38.2	41.9	33.8	34.9	31.8	61.4
Zinc	33.9	27.0	20.9	24.4	20.8	21.7	22.5	36.8
Miscellaneous Parameters (%)								
Percent Moisture	15	16	7	9	11	12	7	16

TABLE 2

SOIL ANALYTICAL RESULTS
BUILDING 748/750
PRESIDIO OF SAN FRANCISCO, CALIFORNIA
(Page 15 of 15)

Boring ID:	748SB15	748SB16	748SB16	748SB16	748SB16	748SB16	748SB16	748SB16	748SB16
Sample Date:	10/27/94	10/28/94	10/28/94	10/28/94	10/28/94	10/28/94	10/28/94	10/28/94	10/28/94
Depth (feet bgs):	45	5	10	15	20	25	30		
Total Petroleum Hydrocarbons (mg/kg)									
Petroleum Hydrocarbons (Diesel Range)	<1.2	<1.2	<1.2	<1.2	<1.1	<1.1	<1.1		
BETX (mg/kg)									
Benzene	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.005		
Ethylbenzene	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.005		
Toluene	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.005		
Total Xylenes	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.005		
Semivolatile Organic Compounds (mg/kg)									
All Analytes	NA	NA	NA	NA	NA	NA	NA		
Metals (mg/kg)									
Arsenic	1.4	2.6	4.3	3.8	3.5	2.3	2.6		
Beryllium	<0.22	0.30	0.70	0.47	0.28	0.24	0.25		
Chromium	71.2	59.2	102	77.1	79.2	68.9	54.6		
Copper	5.4	10.1	16.3	12.7	7.0	5.7	4.9		
Iron	15,300	15,600	28,900	23,200	20,300	16,200	14,300		
Lead	<5.5	<6.1	<6.1	<5.9	<5.8	<5.7	<5.5		
Manganese	182	224	370	389	302	189	130		
Mercury	<0.11	<0.12	<0.12	<0.12	<0.12	<0.11	<0.11		
Nickel	68.1	29.9	63.2	65.6	80.2	70.8	68.1		
Selenium	<0.55	<0.61	<0.61	0.72	<0.58	<0.57	<0.55		
Vanadium	42.7	42.8	69.8	60.2	47.9	40.1	34.7		
Zinc	25.8	24.1	43.0	34.2	26.3	26.2	22.9		
Miscellaneous Parameters (%)									
Percent Moisture	9	18	18	15	13	13	9		

See Table 4 for description of data qualifiers and comments.
bgs - below ground surface

TABLE 3

GROUNDWATER ANALYTICAL RESULTS
BUILDING 748/750
PRESIDIO OF SAN FRANCISCO, CALIFORNIA
(Page 1 of 2)

Boring ID:	748DW17	748DW17
Sample Date:	11/9/94	11/9/94
Depth (feet bgs):	55	55 (Duplicate)
Total Petroleum Hydrocarbons (µg/l)		
Petroleum Hydrocarbons (Diesel Range)	<50	<50
BETX (µg/l)		
Benzene	<0.5	<0.5
Ethylbenzene	<0.5	<0.5
Toluene	<0.5	<0.5
Total Xylenes	<0.5	<0.5
Semivolatile Organic Compounds (µg/l)		
All Analytes	NAD	NAD
Total Metals (mg/l)		
Arsenic	0.043(J9)	0.12
Beryllium	0.013	0.023
Cadmium	0.0033	0.0013
Chromium	3.5	4.6
Copper	0.47	0.46
Iron	1,370	2,330
Lead	0.26	0.30
Manganese	28.4	42.8
Mercury	0.00037	0.0011
Nickel	5.8	8.9
Selenium	<0.10 (U9,U27)	<0.10 (U27)
Vanadium	1.9 (J9)	3.0
Zinc	2.1	3.1

TABLE 4

**DATA VALIDATION QUALIFIERS
PRESIDIO OF SAN FRANCISCO**

Notes:

- 1 Chromatographic patterns for fuel hydrocarbons at the Presidio do not typically match laboratory standards.
- 2 All data presented are considered usable per project data quality objectives.
- 3 Concentrations above detection limits are shown in bold.
- 4 See Section 3.8 for a complete list of analytes and analytical methods used.

Flags

J = Qualified as estimated

U = Qualified as not detected

R = Qualified as rejected

Comments

- 1 Qualified due to detected concentration in associated method blank sample.
- 2 Qualified due to detected concentration in associated trip blank sample.
- 3 Qualified due to detected concentration in associated filter blank sample.
- 4 Qualified due to detected concentration in associated equipment rinsate blank sample.
- 5 Qualified as positively biased due to surrogate recoveries above the established acceptance limits.
- 6 Qualified as negatively biased due to surrogate recoveries below the established acceptance limits.
- 7 Qualified due to surrogate recoveries outside the established acceptance limits; bias cannot be determined.
- 8 Qualified as positively biased due to MS/MSD recoveries above the established acceptance limits.
- 9 Qualified as negatively biased due to MS/MSD recoveries below the established acceptance limits.
- 10 Qualified due to MS/MSD recoveries outside the established acceptance limits; bias cannot be determined.
- 11 Qualified as positively biased due to LCS recoveries above the established acceptance limits.
- 12 Qualified as negatively biased due to LCS recoveries below the established acceptance limits.
- 13 Qualified due to LCS recoveries outside the established acceptance limits; bias cannot be determined.
- 14 Qualified as positively biased due to calibration nonconformances.
- 15 Qualified as negatively biased due to calibration nonconformances.
- 16 Qualified due to calibration nonconformances; bias cannot be determined.
- 17 Qualified as negatively biased due to holding time nonconformances.
- 18 Qualified as negatively biased due to sample receipt nonconformances.
- 19 Qualified as positively biased due to sample receipt nonconformances.
- 20 Qualified due to sample receipt nonconformances; bias can not be determined.
- 21 Qualified as positively biased due to other criteria.
- 22 Qualified as negatively biased due to other criteria.
- 23 Qualified due to other criteria; bias cannot be determined.
- 24 Qualified due to detected concentration in associated source water sample.
- 25 Qualified due to chromatographic pattern of the sample does not match the gasoline, diesel, or motor oil calibration pattern.
- 26 Reported value determined by method of standard addition; bias cannot be determined.
- 27 Qualified as negatively biased due to post-digest spike recovery between 40% to 85%.
- 28 Estimated value; result is detected between the method detection limit (MDL) and the reporting limit.
- 29 Qualified due to holding times exceeded.
- 30 Qualified as estimated; compound is a common laboratory contaminant.
- 31 Reported value determined by GC/MS library search; compound is tentatively identified and quantitation is estimated.
- 32 Qualified data explained further in the report associated with the sampling event.

Analytical Table Footnotes:

All values are reported on a dry weight basis.

NA: Not analyzed

NAD: No analytes detected

<10: Not detected above the reporting limit (e.g., <3.0 µg/l = not detected above the reporting limit of 3.0 µg/l).

mg/kg: Milligram per kilogram

mg/l: Milligram per liter

µg/l: Microgram per liter

Total Petroleum Hydrocarbons - Extractable were quantitated using diesel as the calibration standard (EPA Method Mod. 8015)

Total Petroleum Hydrocarbons - Purgeable were quantitated using gasoline as the calibration standard (EPA Method Mod. 8015)

BETX (Benzene, Ethylbenzene, Toluene, and Xylenes) - EPA Method 8020

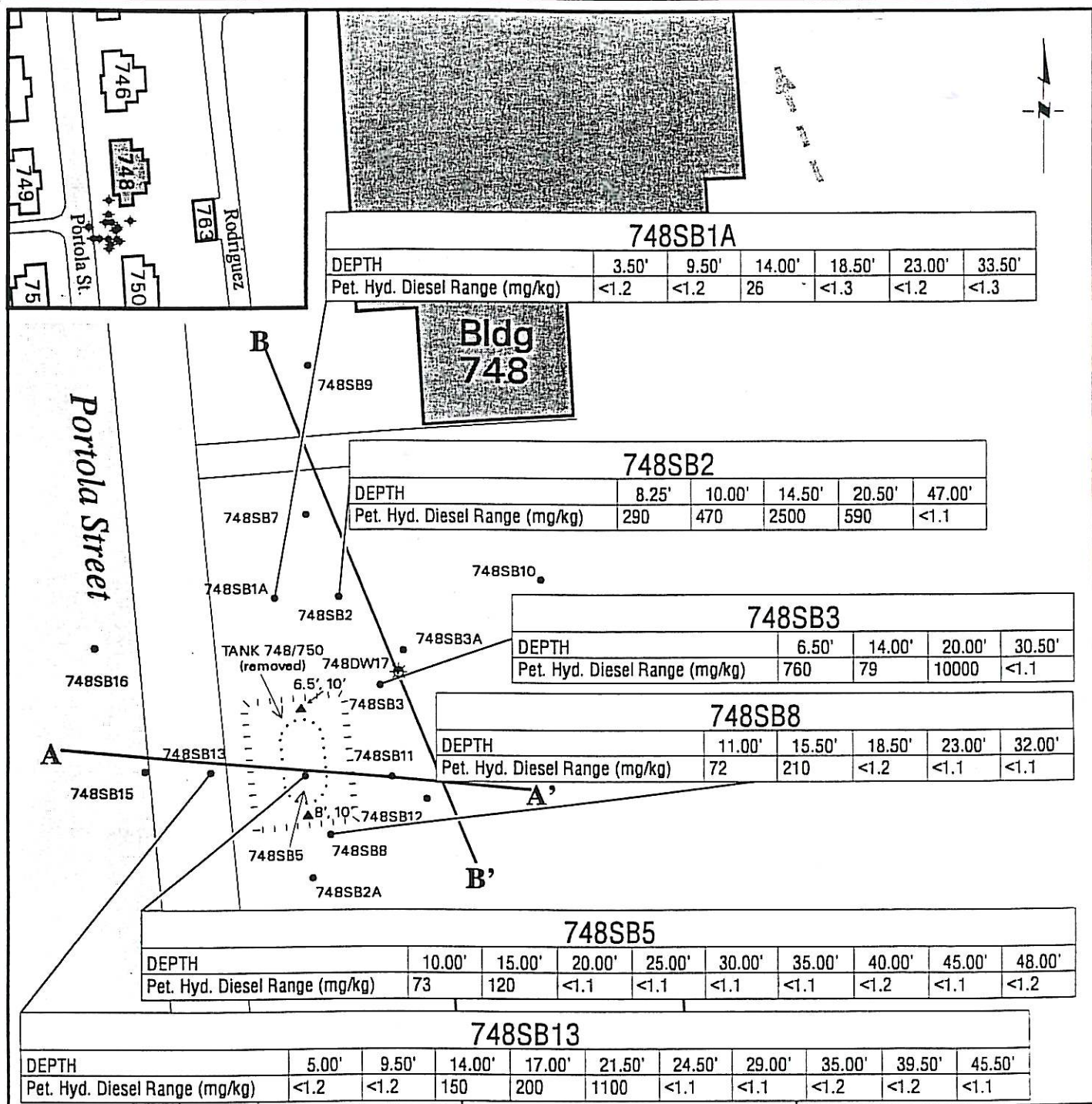
Semivolatile Organic Compounds - EPA Method 8270

Volatile Organic Compounds - EPA Method 8010

Metals - EPA Methods 6010/7000s

Oil & Grease - Standard Methods 5520 EF

Percent Water - ASTM D2216



MONTGOMERY WATSON

PRESIDIO OF SAN FRANCISCO

CALIFORNIA

ADDITIONAL UNDERGROUND STORAGE

TANK INVESTIGATION

PETROLEUM HYDROCARBONS CONCENTRATION

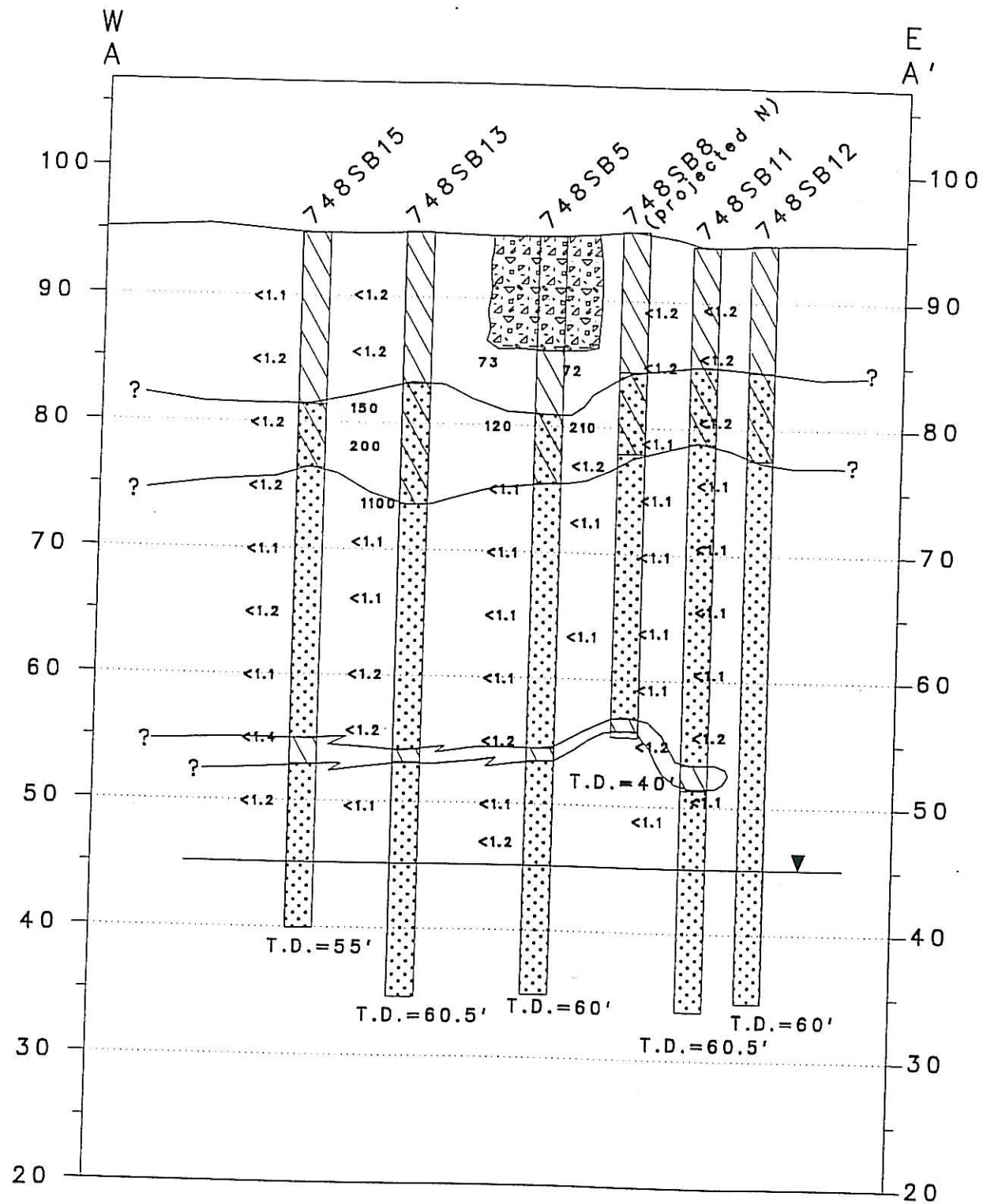
MAP FOR TANK 748/750

FIGURE 1

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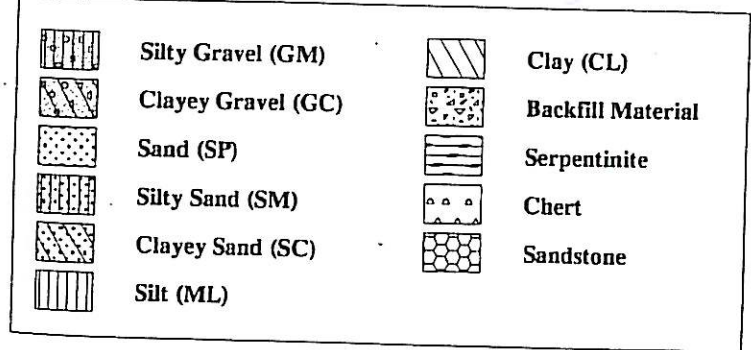
1748.1-x.gra

ELEVATION (FT. LLW)



Note: Excavation location and dimensions are approximate.

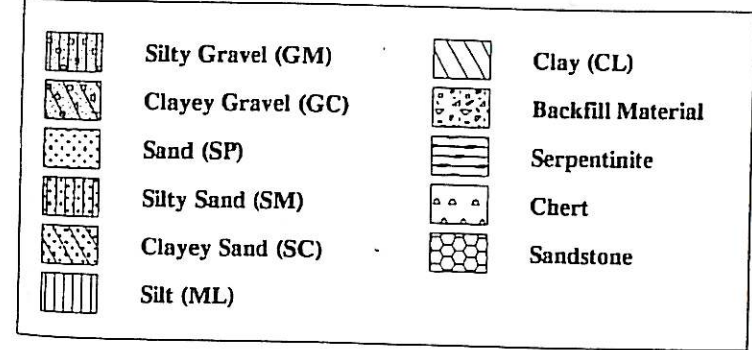
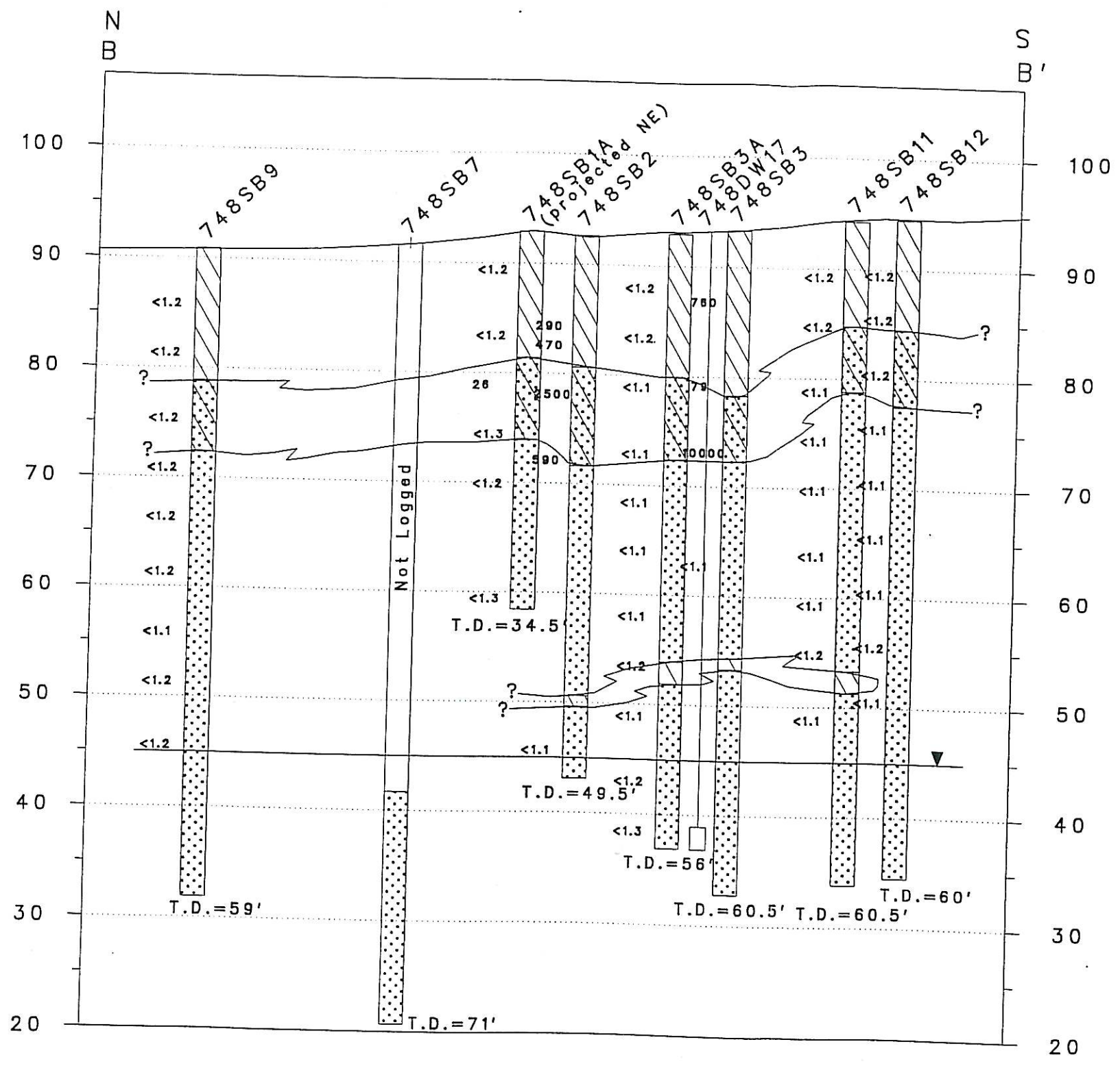
Horizontal Scale 1" = 9'
Vertical Scale 1" = 12'



T.D. Total Depth
LLW Lower Low Water Vertical Datum
10 Concentration of Petroleum Hydrocarbons (Diesel Range) in mg/kg posted to left of boring
<1.2 Result is below reporting limit shown
▼ Approximate Water Table

MONTGOMERY WATSON

PRESIDIO OF SAN FRANCISCO CALIFORNIA
ADDITIONAL UNDERGROUND STORAGE
TANK INVESTIGATION
GEOLOGIC CROSS SECTION MAP
FOR TANK 748/750
FIGURE 2



T.D. Total Depth
 LLW Lower Low Water Vertical Datum
 10 Concentration of Petroleum Hydrocarbons (Diesel Range) in mg/kg posted to left of boring
 <1.2 Result is below reporting limit shown
 □ Hydropunch Location and Sample Interval
 ▼ Approximate Water Table

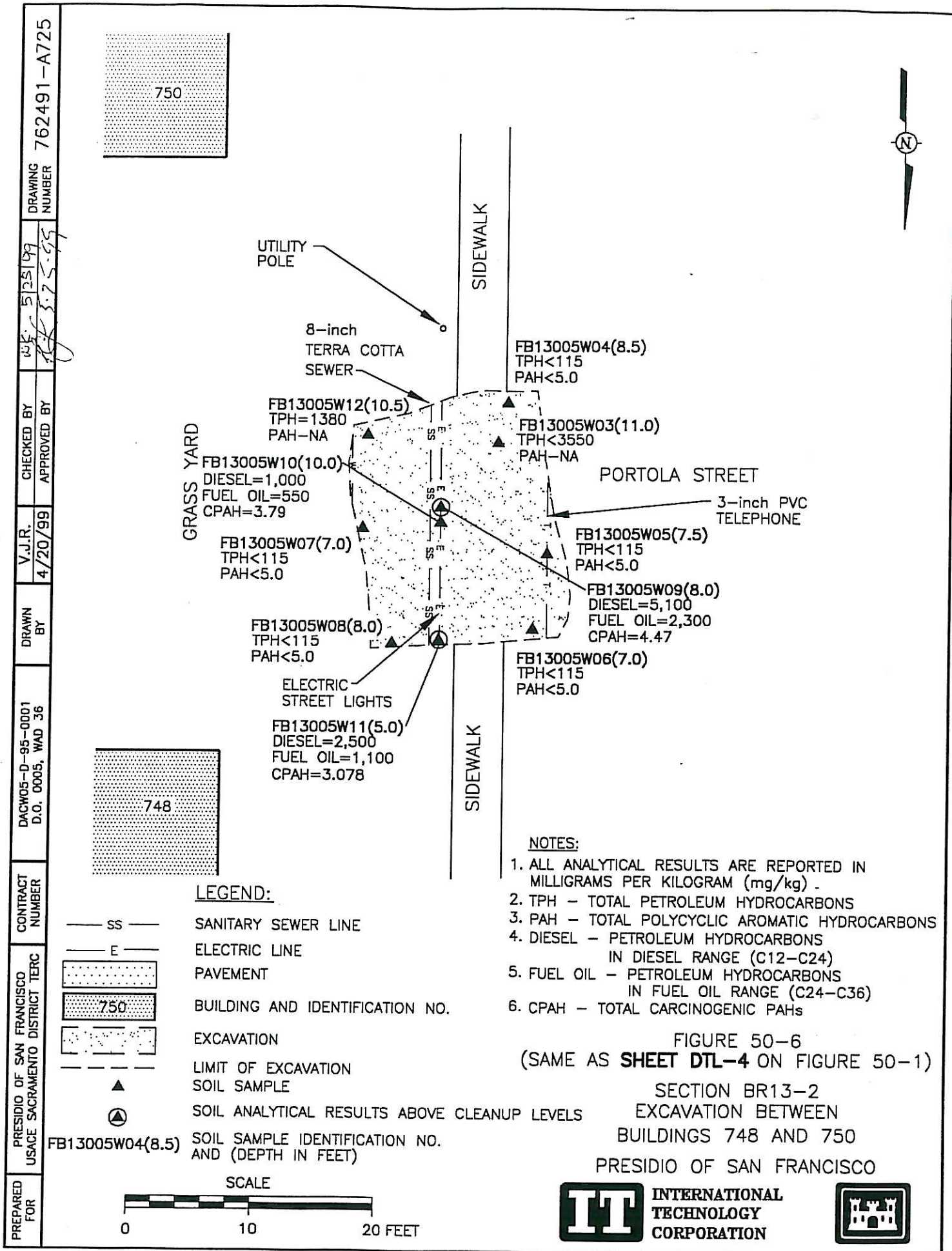
Note: Excavation location and dimensions are approximate.

Horizontal Scale 1" = 8'
 Vertical Scale 1" = 12'

MONTGOMERY WATSON

PRESIDIO OF SAN FRANCISCO CALIFORNIA
 ADDITIONAL UNDERGROUND STORAGE
 TANK INVESTIGATION
 GEOLOGIC CROSS SECTION MAP
 FOR TANK 748/750
 FIGURE 3

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DRAFT MINI-CORRECTIVE ACTION PLAN
UST Number 748/750
PRESIDIO OF SAN FRANCISCO, CALIFORNIA

TANK DIMENSIONS AND PLACEMENT

Tank Volume:	3000 gallons	Depth to Top of Tank:	3 ft.
Tank Diameter:	Unknown	Groundwater Area^a:	Northeastern
		Groundwater Basin^a:	Marina
Tank Former Contents:	Fuel Oil	Elevation Difference Between Ground Surface and Basement Floor:	N/A
Tank Location:	Outdoor	Depth to Groundwater	50 ft. bgs (est.)

TANK MANAGEMENT INFORMATION

Date Tank Identified	1990	Date Site Characterization Conducted	1994
Date Tank Removed	8/17/93	Soil Contamination Present	Yes
Date Tank Closure Report Submitted	09/93	Groundwater Contamination Present:	No

TANK CLOSURE SUMMARY^d

Tank Removal Confirmation Sampling:

- Four confirmation samples were collected from the excavation site at depths ranging from 6.5 to 10 ft. bgs.
- Petroleum hydrocarbons (diesel range) were detected in all samples at concentrations ranging from 1.9 to 610 mg/kg. These levels are lower than the soil action level (SAL) of 1,380 mg/kg established in the Site Cleanup Requirements (SCRs)^b.
- BTEX compounds were not detected in any of the samples.
- Leaks were observed at the northern end of the tank and at the connection to the product line during removal.

Additional Investigation (AUSTI Results):

- Fifteen soil borings were drilled in the vicinity of the excavation to maximum depths ranging from 34.5 to 70 ft. bgs.
- Soil samples were collected from 3.5 to 54.5 ft. bgs.
- Petroleum hydrocarbons (diesel range) were detected in fifteen samples at concentrations up to 10,000 mg/kg. The concentrations were all less than appropriate action levels.
- Ethylbenzene, toluene, and total xylenes were detected in a few samples, but at concentrations approximately one order of magnitude less than the applicable soil action levels.
- The deepest contamination detected in the soil borings was at 21.5 ft. bgs.
- Groundwater was encountered in some borings at an approximate depth of 50 ft. bgs.
- One HydroPunch groundwater sample was also collected at 55 ft. bgs. No fuels were detected in this sample.

SITE-SPECIFIC CHARACTERISTICS

Surface water within 50 ft.?:	<input type="text" value="No"/>	Terrestrial Receptors Present?:	<input type="text" value="Yes"/>
Fuel Products of Concern:	<input type="text" value="Fuel Oil"/>	Within Aquatic Protection Zone?:	<input type="text" value="Yes"/>
Fuel Product Detected:			
0-2 ft. below ground surface?	<u>No Data</u>		
2-3 ft. below ground surface?	<u>No Data</u>		
3-10 ft. below ground surface?	<u>Yes</u>		
10 ft. below ground surface - >5 ft. above GW Table?	<u>Yes</u>		
<=5 ft. above GW Table?	<u>No</u>		

SITE-SPECIFIC SOIL ACTION LEVELS (Based on SCR Order No. 96-070) ^b :			
Analyte	Action Level (mg/kg)	Criteria: Protection of	Fuel Product Detected? Max. Detected Concentration
1. Depth Range: 0-3 ft. bgs			No Data
Petroleum Hydrocarbons			
Diesel Range (C ₁₂ -C ₂₄)	700	Ecological Receptors, Terrestrial	
Fuel Oil Range (C ₂₄ -C ₃₆)	980	Ecological Receptors, Terrestrial	
Total Carcinogenic PAHs	5.6	Human Health, Residential	
2. Depth Range: 3-10 ft. bgs			Yes
Petroleum Hydrocarbons			
Diesel Range (C ₁₂ -C ₂₄)	1,380	Human Health, Residential	1,700 mg/kg
Fuel Oil Range (C ₂₄ -C ₃₆)	1,900	Human Health, Residential	
Total Carcinogenic PAHs	5.6	Human Health, Residential	
3. Depth Range: 10 ft. bgs->5 ft. above Groundwater Table			Yes
Petroleum Hydrocarbons			
Diesel Range (C ₁₂ -C ₂₄)	15,000	Water Quality, Residual Saturation	10,000 mg/kg
Fuel Oil Range (C ₂₄ -C ₃₆)	15,000	Water Quality, Residual Saturation	
Total Carcinogenic PAHs	-	Not Applicable	
4. Depth Range: <=5 ft. above Groundwater Table			No
Petroleum Hydrocarbons			
Diesel Range (C ₁₂ -C ₂₄)	115	Water Quality, Drinking Water	<1.2 mg/kg
Fuel Oil Range (C ₂₄ -C ₃₆)	160	Water Quality, Drinking Water	
Total Carcinogenic PAHs	111	Water Quality, Drinking Water	

ALTERNATIVES ASSESSMENT (See Figure 5-5, Basewide CAP)^c AND MAJOR COST ESTIMATING ASSUMPTIONS

ALTERNATIVE ASSESSMENT

- All fuel concentrations are less than the appropriate action levels. Therefore, no corrective action is required for this site.

SAMPLING AND MONITORING

<u>Sampling Activity</u>	<u>Analytes and Methods (Checked if Required)</u>
Lab. Sampling (soil samples)	BTEX (EPA 8020) <input type="checkbox"/> TPH-D (EPA 8015) <input type="checkbox"/>
Lab. Sampling (HydroPunch sample)	BTEX (EPA 8020) <input type="checkbox"/> TPH-D (EPA 8015) <input type="checkbox"/>
Soil Treatment Process Sampling	Not applicable

ANTICIPATED CORRECTIVE ACTION SCHEDULE

Corrective Action Start Date: N/A

Corrective Action Duration: N/A

References

- ^a Montgomery Watson, 1995. Attachment B of Fuel Product Action Level Development Report. Presidio of San Francisco, California. Prepared for the U.S. Army Corps of Engineers, Sacramento District. October.
- ^b Regional Water Quality Control Board (RWQCB), 1996. Site Cleanup Requirements for Petroleum-Impacted Soils. Presidio of San Francisco, California. Order No. 96-070. San Francisco Bay Region. May.
- ^c Montgomery Watson, 1996. Final Basewide Corrective Action Plan. Presidio of San Francisco, California. Prepared for U.S. Army Corps of Engineers, Sacramento District. January.
- ^d Montgomery Watson, 1996. Additional Underground Storage Tank Investigation Report. Volume I. Presidio of San Francisco, California. Prepared for the U.S. Army Corps of Engineers, Sacramento District. November.

ATTACHMENTS

EXCERPTS FROM ADDITIONAL UNDERGROUND STORAGE TANK INVESTIGATION (AUSTI) REPORTS

TABLE 1
SOIL BORING AND HYDROPUNCH SUMMARY
BUILDING 748/750
PRESIDIO OF SAN FRANCISCO, CALIFORNIA
(Page 1 of 4)

Soil Boring Number	Ground Surface Elevation (ft LLW)	Installation Date	Soil Sample Depth (ft bgs)	Total Depth (ft bgs)
748SB1A	92.9	1/12/95	3.5	34.5
			9.5	
			14	
			18.5	
			23	
			33.5	
748SB2	92.6	8/18/94	8.25	49.5
			10	
			14.5	
			20.5	
			47	
748SB2A	96.1	1/12/95	3.5	35
			8	
			14	
			18.5	
			23	
748SB3	93.3	8/25/94	6.5	60.5
			14	
			20	
			30.5	
748SB3A	92.9	1/17/95	5	56
			9.5	
			14	
			20	
			24.5	
			29	
			35	
			39.5	
			44	
			50	
			54.5	

TABLE 1
SOIL AND HYDROPUNCH BORING SUMMARY
BUILDING 748/750
PRESIDIO OF SAN FRANCISCO, CALIFORNIA
(Page 2 of 4)

Soil Boring Number	Ground Surface Elevation (ft LLW)	Installation Date	Soil Sample Depth (ft bgs)	Total Depth (ft bgs)
748SB5	94.9	9/14/95	10	60
			15	
			20	
			25	
			30	
			35	
			40	
			45	
			48	
748SB7	91.7	9/16/94	None	70
748SB8	95.4	9/19/94	11	40
			15.5	
			18.5	
			23	
			32	
748SB9	90.8	10/17/94	5	59
			9.5	
			15.5	
			20	
			24.5	
			29.5	
			35	
			39.5	
			45.5	
748SB10	92.4	10/18/94	5	56
			9.5	
			15.5	
			20	
			24.5	
			30.5	
			35	
			38	
			45.5	

TABLE 1
SOIL BORING AND HYDROPUNCH SUMMARY
BUILDING 748/750
PRESIDIO OF SAN FRANCISCO
 (Page 3 of 4)

Soil Boring Number	Ground Surface Elevation (ft LLW)	Installation Date	Soil Sample Depth (ft bgs)	Total Depth (ft bgs)
748SB11	94.3	10/18/94	5	60.5
			9.5	
			15.5	
			20	
			24.5	
		10/19/94	30.5	
			35	
			39.5	
			45.5	
748SB12	94.5	10/19/94	5	60
			9	
			14	
			19	
			24	
			29	
			34	
			39	
			44	
748SB13	95.1	10/20/94	5	60.5
			9.5	
			14	
			17	
			21.5	
			24.5	
			29	
			35	
			39.5	
			45.5	
748SB15	94.9	10/27/94	5	55
			10	
			15	
			20	
			25	
			30	
			35	
			40	
			45	

TABLE 1

**SOIL BORING AND HYDROPUNCH SUMMARY
BUILDING 748/750
PRESIDIO OF SAN FRANCISCO
(Page 4 of 4)**

Soil Boring Number	Ground Surface Elevation (ft LLW)	Installation Date	Soil Sample Depth (ft bgs)	Total Depth (ft bgs)
748SB16	93.9	10/28/94	5	50
			10	
			15	
			20	
			25	
			30	
HydroPunch Number	Ground Surface Elevation (ft LLW)	Installation Date	Groundwater Sample Depths (ft bgs)	Total Depth (ft bgs)
748DW17	Not Surveyed	11/9/94	55	55

Notes:

ft LLW - feet above Presidio lower low water datum

ft bgs - feet below ground surface

TABLE 2
SOIL ANALYTICAL RESULTS
BUILDING 748/750
PRESIDIO OF SAN FRANCISCO, CALIFORNIA
 (Page 1 of 15)

Boring ID:	748SB1A	748SB1A	748SB1A	748SB1A	748SB1A	748SB1A	748SB2
Sample Date:	1/12/95	1/12/95	1/12/95	1/12/95	1/12/95	1/12/95	8/18/94
Depth (feet bgs):	3.5	9.5	14	18.5	23	33.5	8.25
Total Petroleum Hydrocarbons (mg/kg)							
Petroleum Hydrocarbons (Diesel Range)	<1.2	<1.2	26	<1.3	<1.2	<1.3	290
BETX (mg/kg)							
Benzene	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Ethylbenzene	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	0.031
Toluene	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Total Xylenes	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	0.049
Semivolatile Organic Compounds (mg/kg)							
All Analytes	NA	NA	NA	NA	NA	NA	NA
Metals (mg/kg)							
Arsenic	2.1	3.3	2.7	2.5	1.8	0.73	3.1
Beryllium	0.36	0.56	0.46	0.27	0.31	<0.21	0.47
Chromium	70.7	85.0	79.9	79.3	81.4	54.9	50.4
Copper	11.8	14.0	10.8	7.6	7.4	4.6	11.1
Iron	17,700	24,500	19,600	20,800	20,800	11,100	17,900
Lead	<6.1	<5.8	<5.9	<5.8	<5.8	<5.4	<5.9
Manganese	485	467	297	278	206	148	272
Mercury	<0.12	<0.12	<0.12	<0.12	<0.12	<0.11	<0.12
Nickel	35.6	59.6	52.8	80.3	93.7	54.3	34.2
Selenium	<0.61 (U27)	<0.58 (U27)	<0.59 (U27)	<0.58 (U27)	<0.58 (U27)	<0.54	<0.59 (U27)
Vanadium	49.9	64.3	55.4	52.2	54.0	32.0	47.9
Zinc	28.4	34.3	29.1	29.2	29.1	18.4	37.2
Miscellaneous Parameters (%)							
Percent Moisture	18	14	15	13	13	7	15.7

TABLE 2
SOIL ANALYTICAL RESULTS
BUILDING 748/750
PRESIDIO OF SAN FRANCISCO, CALIFORNIA
(Page 2 of 15)

Boring ID:	748SB2	748SB2	748SB2	748SB2	748SB2	748SB2A	748SB2A
Sample Date:	8/18/94	8/18/94	8/18/94	8/18/94	8/18/94	1/12/95	1/12/95
Depth (feet bgs):	8.25 (Duplicate)	10	14.5	20.5	47	3.5	8
Total Petroleum Hydrocarbons (mg/kg)							
Petroleum Hydrocarbons (Diesel Range)	1,700	470	2,500	590	<1.1	<1.2	<1.2
BETX (mg/kg)							
Benzene	<0.006	<0.006	<0.006	<0.006	<0.005	<0.006	<0.006
Ethylbenzene	0.06	0.017	0.022	0.66	<0.005	<0.006	<0.006
Toluene	0.042	<0.006	0.014	0.08	<0.005	<0.006	<0.006
Total Xylenes	0.17	0.13	0.17	0.49	<0.005	<0.006	<0.006
Semivolatile Organic Compounds (mg/kg)							
All Analytes	NA	NA	NA	NA	NAD	NA	NA
Metals (mg/kg)							
Arsenic	4.1	3.6	4.4	4.6	1.6	3.1	4.0
Beryllium	0.45	0.35	0.32	0.24	<0.21	0.59	0.56
Chromium	72.9	38.4	51.5	44.3	74.3 (J9)	75.5	76.3
Copper	13.3	8.8	9.7	6.1	3.8	12.6	19.1
Iron	19,800	13,500	16,700	13,700	9,710	22,800	27,000
Lead	<5.9	<5.9	<5.8	<5.8	<5.3	<5.9	<6.0
Manganese	310	229	329	288	112 (J8)	483	645
Mercury	<0.12	<0.12	<0.12	<0.12	<0.11	<0.12	<0.12
Nickel	34.4	25.4	44.2	43.4	61.8	37.0	53.9
Selenium	<0.59	<0.59 (U27)	<0.58 (U27)	<0.58 (U27)	<0.53	<0.59 (U27,U9)	<0.60 (U27)
Vanadium	50.0	37.8	42.8	35.0	23.1	59.7	69.5
Zinc	38.1	30.9	30.8	26.3	22.4	35.4	44.9
Miscellaneous Parameters (%)							
Percent Moisture	15.0	15.0	13.8	13.1	5.9	15	16

TABLE 2
SOIL ANALYTICAL RESULTS
BUILDING 748/750
PRESIDIO OF SAN FRANCISCO, CALIFORNIA
(Page 3 of 15)

Boring ID:	748SB2A	748SB2A	748SB2A	748SB2A	748SB3	748SB3	748SB3	748SB3
Sample Date:	1/12/95	1/12/95	1/12/95	1/12/95	8/25/94	8/25/94	8/25/94	8/25/94
Depth (feet bgs):	14	18.5	23	34	6.5	14	14 (Duplicate)	20
Total Petroleum Hydrocarbons (mg/kg)								
Petroleum Hydrocarbons (Diesel Range)	<1.2	<1.1	<1.1	<1.1	760	79	430	10,000
BETX (mg/kg)								
Benzene	<0.006	<0.005	<0.006	<0.006	<0.006	<0.006	<0.006	<0.116
Ethylbenzene	<0.006	<0.005	<0.006	<0.006	<0.006	<0.006	<0.006	<0.116
Toluene	<0.006	<0.005	<0.006	<0.006	<0.006	<0.006	<0.006	<0.116
Total Xylenes	<0.006	<0.005	<0.006	<0.006	<0.006	0.008	<0.006	0.12
Semivolatile Organic Compounds (mg/kg)								
All Analytes	NA	NA	NA	NA	NA	NA	NA	NA
Metals (mg/kg)								
Arsenic	3.8	3.9	3.1	1.6	2.6	3.1	2.8	2.3
Beryllium	0.59	0.33	0.29	<0.23	0.41	0.29	0.39	<0.23
Chromium	82.5	65.6	67.8	62.6	55.3	72.0	84.3	70.1
Copper	15.5	6.4	5.9	5.4	11.8	10.6	11.1	6.0
Iron	26,300	17,000	18,800	14,800	19,300	22,400	21,400	16,300
Lead	<5.9	<5.4	<5.5	<5.6	9.4	<5.9	<5.9	6.8
Manganese	471	176	356	209	257	334	378	207
Mercury	<0.12	<0.11	<0.11	<0.11	<0.12	<0.12	<0.12	<0.11
Nickel	70.3	71.1	67.8	70.1	33.0	76.1	75.7	55.5
Selenium	<0.59 (U27)	<0.54 (U27)	<0.55 (U27)	<0.56 (U27)	1.1	0.75	<0.59	<0.57
Vanadium	68.7	42.0	50.8	34.5	50.8	49.8	57.2	42.7
Zinc	37.5	24.3	25.9	26.5	33.8	31.8	33.0	25.5
Miscellaneous Parameters (%)								
Percent Moisture	15	8	9	11	13.9	14.7	15.7	12.3

TABLE 2
SOIL ANALYTICAL RESULTS
BUILDING 748/750
PRESIDIO OF SAN FRANCISCO, CALIFORNIA
(Page 4 of 15)

Boring ID:	748SB3	748SB3A	748SB3A	748SB3A	748SB3A	748SB3A	748SB3A
Sample Date:	8/25/94	1/17/95	1/17/95	1/17/95	1/17/95	1/17/95	1/17/95
Depth (feet bgs):	30.5	5	9.5	14	20	24.5	24.5 (Duplicate)
Total Petroleum Hydrocarbons (mg/kg)							
Petroleum Hydrocarbons (Diesel Range)	<1.1	<1.2	NA	NA	NA	NA	NA
BETX (mg/kg)							
Benzene	<0.005	<0.006	NA	NA	NA	NA	NA
Ethylbenzene	<0.005	<0.006	NA	NA	NA	NA	NA
Toluene	<0.005	<0.006	NA	NA	NA	NA	NA
Total Xylenes	<0.005	<0.006	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (mg/kg)							
All Analytes	NAD	NA	NA	NA	NA	NA	NA
Metals (mg/kg)							
Arsenic	0.62	3.9	3.7	2.7	2.5	1.1	1.7
Beryllium	<0.22	0.70	0.51	<0.22	0.22	<0.21	<0.22
Chromium	45.3	73.1 (J8)	88.2	104	61.2	55.3	73.2
Copper	3.7	16.5	14.7	6.7	6.0	4.2	3.9
Iron	10,900	27,300	26,300	21,500	16,400	12,300	17,600
Lead	6.5	<5.9	6.5	<5.5	<5.6	<5.4	<5.4
Manganese	149	473	513	278	211	159	205
Mercury	<0.11	<0.12	<0.12	<0.11	<0.11	<0.11	<0.11
Nickel	54.9	50.7	77.5	90.0	58.5	59.1	67.7
Selenium	<0.55	<0.59 (U27,U9)	<0.58 (U27)	<0.55 (U27)	<0.56 (U27)	<0.54 (U27)	<0.54 (U27)
Vanadium	23.7	70.6	67.8	57.8	45.1	30.8	49.8
Zinc	22.7	39.5	36.2	29.9	22.3	19.6	23.5
Miscellaneous Parameters (%)							
Percent Moisture	8.9	16	14	9	10	7	8

TABLE 2
SOIL ANALYTICAL RESULTS
BUILDING 748/750
PRESIDIO OF SAN FRANCISCO, CALIFORNIA
(Page 5 of 15)

Boring ID:	748SB3A	748SB3A	748SB3A	748SB3A	748SB3A	748SB3A	748SB5	748SB5
Sample Date:	1/17/95	1/17/95	1/17/95	1/17/95	1/17/95	1/17/95	9/14/94	9/14/94
Depth (feet bgs):	29	35	39.5	44	50	54.5	10	15
Total Petroleum Hydrocarbons (mg/kg)								
Petroleum Hydrocarbons (Diesel Range)	NA	NA	NA	NA	NA	NA	73	120
BETX (mg/kg)								
Benzene	NA	NA	NA	NA	NA	NA	<0.006	<0.006
Ethylbenzene	NA	NA	NA	NA	NA	NA	<0.006	<0.006
Toluene	NA	NA	NA	NA	NA	NA	<0.006	<0.006
Total Xylenes	NA	NA	NA	NA	NA	NA	<0.006	<0.006
Semivolatile Organic Compounds (mg/kg)								
All Analytes	NA	NA	NA	NA	NA	NA	NA	NAD
Metals (mg/kg)								
Arsenic	0.76	0.65	0.78	1.0	3.4	2.0	6.2	6.3
Beryllium	0.22	0.22	0.43	<0.22	<0.23	<0.25	0.34	0.31
Chromium	70.9	77.6	190	77.0	91.3	69.6	60.2	61.9
Copper	5.0	4.3	10.0	5.2	6.5	6.1	13.5	15.2
Iron	15,500	16,600	22,900	17,100	21,000	21,300	22,000	20,800
Lead	<5.4	<5.6	<6.0	<5.5	<5.8	<6.3	<5.8	<5.9
Manganese	222	182	330	271	254	324	327	417
Mercury	<0.11	<0.11	<0.12	<0.11	<0.12	<0.13	<0.12	<0.12
Nickel	72.4	75.8	192	88.5	99.4	79.7	43.9	52.5
Selenium	<0.54 (U27)	<0.56	<0.60 (U27)	<0.55 (U27)	<0.58 (U27)	<0.63 (U27)	<0.58 (U27)	<0.59 (U27)
Vanadium	41.3	44.5	48.0	48.5	55.3	52.6	53.5	53.9
Zinc	23.7	24.2	44.2	24.3	27.3	32.8	30.9	35.2
Miscellaneous Parameters (%)								
Percent Moisture	7	11	16	9	14	20	14	15

TABLE 2
SOIL ANALYTICAL RESULTS
BUILDING 748/750
PRESIDIO OF SAN FRANCISCO, CALIFORNIA
(Page 6 of 15)

Boring ID:	748SB5	748SB5	748SB5	748SB5	748SB5	748SB5	748SB5	748SB5	748SB8
Sample Date:	9/14/94	9/14/94	9/14/94	9/14/94	9/14/94	9/14/94	9/14/94	9/14/94	9/19/94
Depth (feet bgs):	15 (Duplicate)	20	25	30	35	40	45	48	11
Total Petroleum Hydrocarbons (mg/kg)									
Petroleum Hydrocarbons (Diesel Range)	300	<1.1	<1.1	<1.1	<1.1	<1.2	<1.1	<1.2	72
BETX (mg/kg)									
Benzene	<0.006	<0.005	<0.005	<0.006	<0.005	<0.006	<0.006	<0.006	<0.006
Ethylbenzene	<0.006	<0.005	<0.005	<0.006	<0.005	<0.006	<0.006	<0.006	<0.006
Toluene	<0.006	<0.005	<0.005	<0.006	<0.005	<0.006	<0.006	<0.006	<0.006
Total Xylenes	<0.006	<0.005	<0.005	<0.006	<0.005	<0.006	<0.006	<0.006	<0.006
Semivolatile Organic Compounds (mg/kg)									
All Analytes	NAD	NA	NA	NA	NA	NA	NA	NA	NA
Metals (mg/kg)									
Arsenic	5.9	2.2	3.6	1.7	2.0	2.8	2.3	1.2	5.1
Beryllium	0.33	<0.22	<0.23	<0.22	<0.23	<0.24	<0.22	<0.24	0.44
Chromium	64.1	73.1	67.5	53.5	58.7	98.2	53.5	70.5 (J9)	76.6
Copper	15.2	5.1	4.8	4.3	3.9	9.0	5.1	5.1	16.0
Iron	22,100	16,800	16,300	13,100	11,500	20,100	15,000	13,100	26,200
Lead	<6.0	<5.5	<5.7	<5.5	<5.7	<6.0	<5.4	<5.9	<5.9
Manganese	364	187	219	216	146	629	200	176	386
Mercury	<0.12	<0.11	<0.11	<0.11	<0.11	<0.12	<0.11	<0.12	<0.12
Nickel	59.5	63.0	54.6	58.5	48.8	213	90.1	92.5	50.2
Selenium	<0.60 (U27)	<0.55	<0.57	<0.55	<0.57	<0.60 (U27)	<0.54	<0.59	<0.59
Vanadium	58.2	47.3	43.1	31.6	29.7	37.2	35.1	29.1	62.9
Zinc	34.5	21.7	20.4	21.4	18.5	26.0	20.8	20.3	37.2
Miscellaneous Parameters (%)									
Percent Moisture	17	10	12	10	12	17	8	16	16

TABLE 2
SOIL ANALYTICAL RESULTS
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Boring ID:	748SB8	748SB8	748SB8	748SB8	748SB8	748SB9	748SB9	748SB9
Sample Date:	9/19/94	9/19/94	9/19/94	9/19/94	9/19/94	10/17/94	10/17/94	10/17/94
Depth (feet bgs):	15.5	15.5 (Duplicate)	18.5	23	32	5	9.5	15.5
Total Petroleum Hydrocarbons (mg/kg)								
Petroleum Hydrocarbons (Diesel Range)	210	6,300	<1.2	<1.1	<1.1	<1.2	<1.2	<1.2
BETX (mg/kg)								
Benzene	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Ethylbenzene	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Toluene	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Total Xylenes	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006
Semivolatile Organic Compounds (mg/kg)								
All Analytes	NAD	NAD	NA	NA	NA	NA	NA	NA
Metals (mg/kg)								
Arsenic	4.5	3.1	3.1	3.8	3.0	2.5	3.6	3.7
Beryllium	0.40	0.34	<0.22	<0.23	<0.22	0.32	0.51	0.36
Chromium	74.2	74.6	92.3	59.9	46.0	58.3	67.9	97.0
Copper	13.8	13.1	6.7	6.0	4.9	12.5	13.3	11.9
Iron	21,800	24,700	21,600	18,600	14,400	19,400	25,100	25,400
Lead	<5.9	<5.9	<5.6	<5.7	<5.4	<5.7	<5.8	<5.8
Manganese	457	410	316	254	193	564	463	357
Mercury	<0.12	<0.12	<0.11	<0.11	<0.11	<0.11	<0.12	<0.12
Nickel	72.3	72.8	117	70.5	61.3	37.5	43.4	72.7
Selenium	<0.59	<0.59 (U27)	<0.56	<0.57	<0.54	<0.57 (U27)	<0.58 (U27)	<0.58 (U27)
Vanadium	56.6	54.6	45.1	46.6	35.8	51.6	64.4	66.0
Zinc	35.8	35.3	35.5	26.5	22.4	30.4	39.6	32.4
Miscellaneous Parameters (%)								
Percent Moisture	15	15	11	12	8	13	15	14

TABLE 2
SOIL ANALYTICAL RESULTS
BUILDING 748/750
PRESIDIO OF SAN FRANCISCO, CALIFORNIA
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Boring ID:	748SB9	748SB9	748SB9	748SB9	748SB9	748SB9	748SB9	748SB10
Sample Date:	10/17/94	10/17/94	10/17/94	10/17/94	10/17/94	10/17/94	10/17/94	10/18/94
Depth (feet bgs):	20	24.5	29.5	35	39.5	39.5 (Duplicate)	45.5	5
Total Petroleum Hydrocarbons (mg/kg)								
Petroleum Hydrocarbons (Diesel Range)	<1.2	<1.2	<1.2	<1.1	<1.2	<1.1	<1.2	<1.2
BETX (mg/kg)								
Benzene	<0.006	<0.006	<0.006	<0.005	<0.006	<0.006	<0.006	<0.006
Ethylbenzene	<0.006	<0.006	<0.006	<0.005	<0.006	<0.006	<0.006	<0.006
Toluene	<0.006	<0.006	<0.006	<0.005	<0.006	<0.006	<0.006	<0.006
Total Xylenes	<0.006	<0.006	<0.006	<0.005	<0.006	<0.006	<0.006	<0.006
Semivolatile Organic Compounds (mg/kg)								
All Analytes	NA	NA	NA	NA	NAD	NAD	NA	NA
Metals (mg/kg)								
Arsenic	3.5	1.1	1.8	2.6	1.1	1.1	1.6	5.1
Beryllium	0.23	<0.24	<0.23	<0.24	<0.22	<0.23	<0.24	0.53
Chromium	74.1	78.7	61.5	73.6	59.0	68.7	61.0	88.8
Copper	8.7	6.0	4.4	7.3	6.5	9.6	5.6	16.4
Iron	21,600	16,800	14,600	20,300	11,800	16,800	16,800	28,000
Lead	<5.8	<5.9	<5.7	<5.9	<5.5	<5.7	<6.0	<5.8
Manganese	306	190	130	269	139	239	305	473
Mercury	<0.12	<0.12	<0.11	<0.12	<0.11	<0.11	<0.12	<0.12
Nickel	80.6	87.9	99.5	119	64.4	97.0	104	53.1
Selenium	<0.58 (U27)	<0.59 (U27)	<0.57	<0.59 (U27)	<0.55	<0.57 (U27)	<0.60	<0.58 (U27)
Vanadium	49.8	38.0	32.6	44.0	30.1	44.6	36.1	72.3
Zinc	27.1	28.5	20.4	26.2	21.4	29.4	25.7	34.0
Miscellaneous Parameters (%)								
Percent Moisture	14	16	12	16	10	13	16	13

TABLE 2
SOIL ANALYTICAL RESULTS
BUILDING 748/750
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Boring ID:	748SB10	748SB10	748SB10	748SB10	748SB10	748SB10	748SB10	748SB10
Sample Date:	10/18/94	10/18/94	10/18/94	10/18/94	10/18/94	10/18/94	10/18/94	10/18/94
Depth (feet bgs):	9.5	15.5	20	24.5	30.5	35	38	45.5
Total Petroleum Hydrocarbons (mg/kg)								
Petroleum Hydrocarbons (Diesel Range)	<1.2	<1.1	<1.1	<1.1	<1.1	<1.1	<1.4	<1.2
BETX (mg/kg)								
Benzene	<0.006	<0.006	<0.006	<0.005	<0.005	<0.006	<0.007	<0.006
Ethylbenzene	<0.006	<0.006	<0.006	<0.005	<0.005	<0.006	<0.007	<0.006
Toluene	<0.006	<0.006	<0.006	<0.005	<0.005	<0.006	<0.007	<0.006
Total Xylenes	<0.006	<0.006	<0.006	<0.005	<0.005	<0.006	<0.007	<0.006
Semivolatile Organic Compounds (mg/kg)								
All Analytes	NA	NA	NA	NA	NA	NA	NA	NA
Metals (mg/kg)								
Arsenic	4.1	4.1	2.6	3.6	1.4	3.0	5.1	1.7
Beryllium	0.32	<0.22	<0.22	<0.22	<0.21	<0.22	0.63	<0.24
Chromium	83.4	95.3	60.5	66.1	76.5	97.5	230	64.4
Copper	9.5	6.8	5.0	5.2	5.1	7.0	22.3	5.4
Iron	23,200	23,500	15,400	17,300	20,500	19,600	45,400	15,200
Lead	<5.8	<5.6	<5.4	<5.6	<5.3	<5.5	<6.7	<5.9
Manganese	279	294	193	172	194	224	283	226
Mercury	<0.12	<0.11	<0.11	<0.11	<0.11	<0.11	<0.13	<0.12
Nickel	100	87.8	60.0	80.3	61.4	104	300	81.1
Selenium	<0.58 (U27)	<0.56	<0.54	<0.56	<0.53	<0.55	<0.67 (U27)	<0.59
Vanadium	50.1	58.2	39.3	40.8	65.2	54.1	85.5	39.0
Zinc	28.1	29.1	21.6	22.6	23.9	23.8	59.7	23.4
Miscellaneous Parameters (%)								
Percent Moisture	14	11	7	10	6	10	26	16

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SOIL ANALYTICAL RESULTS
BUILDING 748/750
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Boring ID:	748SB11	748SB11	748SB11	748SB11	748SB11	748SB11	748SB11	748SB11
Sample Date:	10/18/94	10/18/94	10/18/94	10/18/94	10/18/94	10/18/94	10/18/94	10/19/94
Depth (feet bgs):	5	9.5	15.5	20	20 (Duplicate)	24.5	30.5	35
Total Petroleum Hydrocarbons (mg/kg)								
Petroleum Hydrocarbons (Diesel Range)	<1.2	<1.2	<1.1	<1.1	<1.1	<1.1	<1.1	<1.1
BETX (mg/kg)								
Benzene	<0.006	<0.006	<0.005	<0.005	<0.006	<0.006	<0.005	<0.005
Ethylbenzene	<0.006	<0.006	<0.005	<0.005	<0.006	<0.006	<0.005	<0.005
Toluene	<0.006	<0.006	<0.005	<0.005	<0.006	<0.006	<0.005	<0.005
Total Xylenes	<0.006	<0.006	<0.005	<0.005	<0.006	<0.006	<0.005	<0.005
Semivolatile Organic Compounds (mg/kg)								
All Analytes	NA	NA	NA	NA	NA	NA	NA	NA
Metals (mg/kg)								
Arsenic	5.6	4.7	2.3	3.3	2.1	2.4	1.4	0.78
Beryllium	0.54	0.42	<0.22	0.26	0.35	0.35	<0.22	<0.22
Chromium	102	86.7	69.1	74.4	148	62.8	57.7	70.8 (J9)
Copper	18.6	14.9	5.5	5.9	6.6	5.4	4.6	4.2
Iron	31,500	25,900	15,900	19,600	53,500	17,000	12,500	12,800
Lead	<6.1	<5.9	<5.5	<5.4	<5.3	<5.6	<5.4	<5.6
Manganese	332	384	218	330	340	219	164	169
Mercury	<0.12	<0.12	<0.11	<0.11	<0.11	<0.11	<0.11	<0.11
Nickel	52.7	64.0	69.9	60.6	53.3	69.7	53.5	70.9
Selenium	<0.61 (U27)	<0.59 (U27)	<0.55	<0.54	<0.53	<0.56	<0.54	<0.56 (U27,U9)
Vanadium	80.2	66.5	39.1	55.5	196	39.9	30.6	31.1
Zinc	42.9	35.7	24.8	23.8	38.7	24.8	21.1	23.5
Miscellaneous Parameters (%)								
Percent Moisture	18	15	9	8	6	11	7	11

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SOIL ANALYTICAL RESULTS
BUILDING 748/750
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Boring ID:	748SB11	748SB11	748SB12	748SB12	748SB12	748SB12	748SB12	748SB12
Sample Date:	10/19/94	10/19/94	10/19/94	10/19/94	10/19/94	10/19/94	10/19/94	10/19/94
Depth (feet bgs):	39.5	45.5	5	9	14	19	24	29
Total Petroleum Hydrocarbons (mg/kg)								
Petroleum Hydrocarbons (Diesel Range)	<1.2	<1.1	<1.2	<1.2	<1.2	<1.1	<1.1	<1.1
BETX (mg/kg)								
Benzene	<0.006	<0.006	<0.006	<0.006	<0.006	<0.005	<0.006	<0.005
Ethylbenzene	<0.006	<0.006	<0.006	<0.006	<0.006	<0.005	<0.006	<0.005
Toluene	<0.006	<0.006	<0.006	<0.006	<0.006	<0.005	<0.006	<0.005
Total Xylenes	<0.006	<0.006	<0.006	<0.006	<0.006	<0.005	<0.006	<0.005
Semivolatile Organic Compounds (mg/kg)								
All Analytes	NA	NA	NA	NA	NA	NA	NA	NA
Metals (mg/kg)								
Arsenic	2.9	1.0	4.2	4.2	3.9	3.6	2.7	1.7
Beryllium	<0.22	<0.21	0.44	0.59	0.41	<0.21	<0.22	<0.22
Chromium	55.8	94.9	84.3	74.2	125	88.5	99.5	45.5
Copper	5.4	5.1	15.1	14.1	11.6	5.0	6.7	3.8
Iron	16,300	15,500	30,100	25,600	33,800	16,600	20,600	12,300
Lead	<5.6	<5.4	<6.0	<5.9	<5.8	<5.3	<5.6	<5.4
Manganese	167	210	562	431	338	169	266	144
Mercury	<0.11	<0.11	<0.12	<0.12	<0.12	<0.11	<0.11	<0.11
Nickel	82.1	87.6	49.9	54.1	116	58.0	105	54.8
Selenium	<0.56 (U27)	<0.54 (U27)	<0.60 (U27)	<0.59 (U27)	<0.58 (U27)	<0.53 (U27)	<0.56 (U27)	<0.54 (U27)
Vanadium	39.4	42.4	74.4	63.8	83.4	46.6	52.9	29.5
Zinc	21.3	24.6	44.8	37.5	39.0	21.8	25.6	19.0
Miscellaneous Parameters (%)								
Percent Moisture	10	7	16	15	14	5	11	8

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SOIL ANALYTICAL RESULTS
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Boring ID:	748SB12	748SB12	748SB12	748SB13	748SB13	748SB13	748SB13
Sample Date:	10/19/94	10/19/94	10/19/94	10/20/94	10/20/94	10/20/94	10/20/94
Depth (feet bgs):	34	39	44	5	9.5	14	17
Total Petroleum Hydrocarbons (mg/kg)							
Petroleum Hydrocarbons (Diesel Range)	<1.1	<1.2	<1.1	<1.2	<1.2	150	200
BETX (mg/kg)							
Benzene	<0.006	<0.006	<0.005	<0.006	<0.006	<0.006	<0.006
Ethylbenzene	<0.006	<0.006	<0.005	<0.006	<0.006	<0.006	<0.006
Toluene	<0.006	<0.006	<0.005	<0.006	<0.006	<0.006	<0.006
Total Xylenes	<0.006	<0.006	<0.005	<0.006	<0.006	<0.006	<0.006
Semivolatile Organic Compounds (mg/kg)							
All Analytes	NA	NA	NA	NA	NA	NA	NA
Metals (mg/kg)							
Arsenic	1.1	1.3	1.5	3.8	4.1	6.6	4.1
Beryllium	<0.20	0.22	<0.22	0.57	0.40	0.36	<0.24
Chromium	70.9	111	80.5	58.7	69.9	92.4	71.2
Copper	4.6	8.4	6.6	11.8	15.0	14.9	13.2
Iron	13,000	23,300	17,500	22,500	25,600	25,600	23,900
Lead	<5.0	<5.4	<5.4	<5.8	<6.0	<6.0	<5.9
Manganese	169	341	200	486	647	296	439
Mercury	<0.10	<0.11	<0.11	<0.12	<0.12	<0.12	<0.12
Nickel	65.7	216	78.4	36.7	49.1	62.2	67.1
Selenium	<0.50 (U27)	<0.54 (U27)	<0.54 (U27)	<0.58 (U27,U9)	<0.60 (U27)	<0.60 (U27)	<0.59 (U27)
Vanadium	31.4	38.5	49.1	56.9	64.7	71.4	59.1
Zinc	23.0	31.7	25.7	36.6	40.9	36.9	35.3
Miscellaneous Parameters (%)							
Percent Moisture	0.6	7	7	14	17	16	15

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SOIL ANALYTICAL RESULTS
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Boring ID:	748SB13	748SB13	748SB13	748SB13	748SB13	748SB13	748SB13	748SB15
Sample Date:	10/20/94	10/20/94	10/20/94	10/20/94	10/20/94	10/20/94	10/20/94	10/27/94
Depth (feet bgs):	17 (Duplicate)	21.5	24.5	29	35	39.5	45.5	5
Total Petroleum Hydrocarbons (mg/kg)								
Petroleum Hydrocarbons (Diesel Range)	550	1,100	<1.1	<1.1	<1.2	<1.2	<1.1	<1.1
BETX (mg/kg)								
Benzene	<0.006	<0.006	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006
Ethylbenzene	<0.006	<0.006	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006
Toluene	<0.006	<0.006	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006
Total Xylenes	<0.006	<0.006	<0.006	<0.005	<0.006	<0.006	<0.005	<0.006
Semivolatile Organic Compounds (mg/kg)								
All Analytes	NA	NA	NA	NA	NA	NA	NA	NA
Metals (mg/kg)								
Arsenic	5.4	3.8	2.7	2.3	1.1	3.0	0.90	3.4
Beryllium	0.32	0.33	<0.22	<0.22	<0.23	<0.23	<0.21	0.53
Chromium	74.1	78.2	65.7	68.5	63.5	55.1	68.5	63.0
Copper	13.2	8.6	5.0	5.7	3.9	5.7	5.0	13.5
Iron	26,600	21,700	14,800	16,600	12,500	15,600	12,900	23,500
Lead	<5.9	<6.0	<5.4	<5.5	<5.6	<5.7	<5.4	<6.0
Manganese	498	231	180	236	173	228	160	443
Mercury	<0.12	<0.12	<0.11	<0.11	<0.11	<0.11	<0.11	<0.12 (U9)
Nickel	61.5	85.5	50.9	68.1	60.7	84.8	76.0	43.8
Selenium	<0.59 (U27)	<0.60	<0.54	<0.55	<0.56	<0.57	<0.54	<0.60 (U27,U9)
Vanadium	61.6	47.0	38.2	41.9	33.8	34.9	31.8	61.4
Zinc	33.9	27.0	20.9	24.4	20.8	21.7	22.5	36.8
Miscellaneous Parameters (%)								
Percent Moisture	15	16	7	9	11	12	7	16

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SOIL ANALYTICAL RESULTS
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Boring ID:	748SB15	748SB15	748SB15	748SB15	748SB15	748SB15	748SB15	748SB15
Sample Date:	10/27/94	10/27/94	10/27/94	10/27/94	10/27/94	10/27/94	10/27/94	10/27/94
Depth (feet bgs):	10	15	20	25	30	35	40	40 (Duplicate)
Total Petroleum Hydrocarbons (mg/kg)								
Petroleum Hydrocarbons (Diesel Range)	<1.2	<1.2	<1.2	<1.1	<1.2	<1.1	<1.4	<1.2
BETX (mg/kg)								
Benzene	<0.006	<0.006	<0.006	<0.005	<0.006	<0.006	<0.007	<0.006
Ethylbenzene	<0.006	<0.006	<0.006	<0.005	<0.006	<0.006	<0.007	<0.006
Toluene	<0.006	<0.006	<0.006	<0.005	<0.006	<0.006	<0.007	<0.006
Total Xylenes	<0.006	<0.006	<0.006	<0.005	<0.006	<0.006	<0.007	<0.006
Semivolatile Organic Compounds (mg/kg)								
All Analytes	NA	NA	NA	NA	NA	NA	NA	NA
Metals (mg/kg)								
Arsenic	4.6	3.2	2.9	2.5	2.1	2.2	6.7	1.2
Beryllium	0.52	0.43	0.25	0.22	0.23	0.26	0.64	0.27
Chromium	68.5	69.1	54.9	62.3	75.0	56.4	235	73.7
Copper	14.4	11.4	5.5	5.2	5.4	4.3	17.0	7.4
Iron	24,500	20,200	15,200	14,700	15,800	14,200	50,900	19,800
Lead	<6.0	<5.8	<5.5	<5.5	<5.6	<5.8	<6.9	<5.6
Manganese	305	445	170	148	169	164	966	291
Mercury	<0.12	<0.12	<0.11	<0.11	<0.11	<0.12	<0.14	<0.11
Nickel	48.8	64.0	69.3	55.3	75.3	77.5	515	126
Selenium	<0.60	<0.58	<0.55	<0.55	<0.56	<0.58	0.78	<0.56
Vanadium	63.5	49.2	34.8	38.9	38.6	35.1	92.7	47.4
Zinc	36.7	28.6	22.9	21.5	23.4	19.5	51.4	30.8
Miscellaneous Parameters (%)								
Percent Moisture	16	14	10	9	11	13	27	11

TABLE 2
SOIL ANALYTICAL RESULTS
BUILDING 748/750
PRESIDIO OF SAN FRANCISCO, CALIFORNIA
(Page 15 of 15)

Boring ID:	748SB15	748SB16	748SB16	748SB16	748SB16	748SB16	748SB16
Sample Date:	10/27/94	10/28/94	10/28/94	10/28/94	10/28/94	10/28/94	10/28/94
Depth (feet bgs):	45	5	10	15	20	25	30
Total Petroleum Hydrocarbons (mg/kg)							
Petroleum Hydrocarbons (Diesel Range)	<1.2	<1.2	<1.2	<1.2	<1.1	<1.1	<1.1
BETX (mg/kg)							
Benzene	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.005
Ethylbenzene	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.005
Toluene	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.005
Total Xylenes	<0.006	<0.006	<0.006	<0.006	<0.006	<0.006	<0.005
Semivolatile Organic Compounds (mg/kg)							
All Analytes	NA	NA	NA	NA	NA	NA	NA
Metals (mg/kg)							
Arsenic	1.4	2.6	4.3	3.8	3.5	2.3	2.6
Beryllium	<0.22	0.30	0.70	0.47	0.28	0.24	0.25
Chromium	71.2	59.2	102	77.1	79.2	68.9	54.6
Copper	5.4	10.1	16.3	12.7	7.0	5.7	4.9
Iron	15,300	15,600	28,900	23,200	20,300	16,200	14,300
Lead	<5.5	<6.1	<6.1	<5.9	<5.8	<5.7	<5.5
Manganese	182	224	370	389	302	189	130
Mercury	<0.11	<0.12	<0.12	<0.12	<0.12	<0.11	<0.11
Nickel	68.1	29.9	63.2	65.6	80.2	70.8	68.1
Selenium	<0.55	<0.61	<0.61	0.72	<0.58	<0.57	<0.55
Vanadium	42.7	42.8	69.8	60.2	47.9	40.1	34.7
Zinc	25.8	24.1	43.0	34.2	26.3	26.2	22.9
Miscellaneous Parameters (%)							
Percent Moisture	9	18	18	15	13	13	9

See Table 4 for description of data qualifiers and comments.
bgs - below ground surface

TABLE 3
GROUNDWATER ANALYTICAL RESULTS
BUILDING 748/750
PRESIDIO OF SAN FRANCISCO, CALIFORNIA
(Page 1 of 2)

Boring ID:	748DW17	748DW17
Sample Date:	11/9/94	11/9/94
Depth (feet bgs):	55	55 (Duplicate)
Total Petroleum Hydrocarbons (µg/l)		
Petroleum Hydrocarbons (Diesel Range)	<50	<50
BETX (µg/l)		
Benzene	<0.5	<0.5
Ethylbenzene	<0.5	<0.5
Toluene	<0.5	<0.5
Total Xylenes	<0.5	<0.5
Semivolatile Organic Compounds (µg/l)		
All Analytes	NAD	NAD
Total Metals (mg/l)		
Arsenic	0.043(J9)	0.12
Beryllium	0.013	0.023
Cadmium	0.0033	0.0013
Chromium	3.5	4.6
Copper	0.47	0.46
Iron	1,370	2,330
Lead	0.26	0.30
Manganese	28.4	42.8
Mercury	0.00037	0.0011
Nickel	5.8	8.9
Selenium	<0.10 (U9,U27)	<0.10 (U27)
Vanadium	1.9 (J9)	3.0
Zinc	2.1	3.1

TABLE 3
GROUNDWATER ANALYTICAL RESULTS
BUILDING 748/750
PRESIDIO OF SAN FRANCISCO, CALIFORNIA
(Page 2 of 2)

Boring ID:	748DW17	748DW17
Sample Date:	11/9/94	11/9/94
Depth (feet bgs):	55	55 (Duplicate)
Dissolved Metals (mg/l)		
Arsenic	<0.0050 (U27)	<0.0050 (U27)
Beryllium	<0.0020	0.0039
Cadmium	0.0028	0.0036
Chromium	0.052	0.054
Copper	0.36	0.37
Iron	26.8	22.1
Lead	0.020	0.016
Manganese	5.8	10.6
Mercury	<0.00020	<0.00020
Nickel	0.26	0.59
Selenium	<0.050 (U9)	<0.050
Vanadium	0.083	0.082
Zinc	0.33	0.50

See Table 4 for description of data qualifiers and comments.

bgs - below ground surface

TABLE 4

DATA VALIDATION QUALIFIERS PRESIDIO OF SAN FRANCISCO

Notes:

- 1 Chromatographic patterns for fuel hydrocarbons at the Presidio do not typically match laboratory standards.
- 2 All data presented are considered usable per project data quality objectives.
- 3 Concentrations above detection limits are shown in bold.
- 4 See Section 3.8 for a complete list of analytes and analytical methods used.

Flags

J = Qualified as estimated

U = Qualified as not detected

R = Qualified as rejected

Comments

- 1 Qualified due to detected concentration in associated method blank sample.
- 2 Qualified due to detected concentration in associated trip blank sample.
- 3 Qualified due to detected concentration in associated filter blank sample.
- 4 Qualified due to detected concentration in associated equipment rinsate blank sample.
- 5 Qualified as positively biased due to surrogate recoveries above the established acceptance limits.
- 6 Qualified as negatively biased due to surrogate recoveries below the established acceptance limits.
- 7 Qualified due to surrogate recoveries outside the established acceptance limits; bias cannot be determined.
- 8 Qualified as positively biased due to MS/MSD recoveries above the established acceptance limits.
- 9 Qualified as negatively biased due to MS/MSD recoveries below the established acceptance limits.
- 10 Qualified due to MS/MSD recoveries outside the established acceptance limits; bias cannot be determined.
- 11 Qualified as positively biased due to LCS recoveries above the established acceptance limits.
- 12 Qualified as negatively biased due to LCS recoveries below the established acceptance limits.
- 13 Qualified due to LCS recoveries outside the established acceptance limits; bias cannot be determined.
- 14 Qualified as positively biased due to calibration nonconformances.
- 15 Qualified as negatively biased due to calibration nonconformances.
- 16 Qualified due to calibration nonconformances; bias cannot be determined.
- 17 Qualified as negatively biased due to holding time nonconformances.
- 18 Qualified as negatively biased due to sample receipt nonconformances.
- 19 Qualified as positively biased due to sample receipt nonconformances.
- 20 Qualified due to sample receipt nonconformances; bias can not be determined.
- 21 Qualified as positively biased due to other criteria.
- 22 Qualified as negatively biased due to other criteria.
- 23 Qualified due to other criteria; bias cannot be determined.
- 24 Qualified due to detected concentration in associated source water sample.
- 25 Qualified due to chromatographic pattern of the sample does not match the gasoline, diesel, or motor oil calibration pattern.
- 26 Reported value determined by method of standard addition; bias cannot be determined.
- 27 Qualified as negatively biased due to post-digest spike recovery between 40% to 85%.
- 28 Estimated value; result is detected between the method detection limit (MDL) and the reporting limit.
- 29 Qualified due to holding times exceeded.
- 30 Qualified as estimated; compound is a common laboratory contaminant.
- 31 Reported value determined by GC/MS library search; compound is tentatively identified and quantitation is estimated.
- 32 Qualified data explained further in the report associated with the sampling event.

Analytical Table Footnotes:

All values are reported on a dry weight basis.

NA: Not analyzed

NAD: No analytes detected

<10: Not detected above the reporting limit (e.g., <3.0 µg/l = not detected above the reporting limit of 3.0 µg/l).

mg/kg: Milligram per kilogram

mg/l: Milligram per liter

µg/l: Microgram per liter

Total Petroleum Hydrocarbons - Extractable were quantitated using diesel as the calibration standard (EPA Method Mod. 8015)

Total Petroleum Hydrocarbons - Purgeable were quantitated using gasoline as the calibration standard (EPA Method Mod. 8015)

BETX (Benzene, Ethylbenzene, Toluene, and Xylenes) - EPA Method 8020

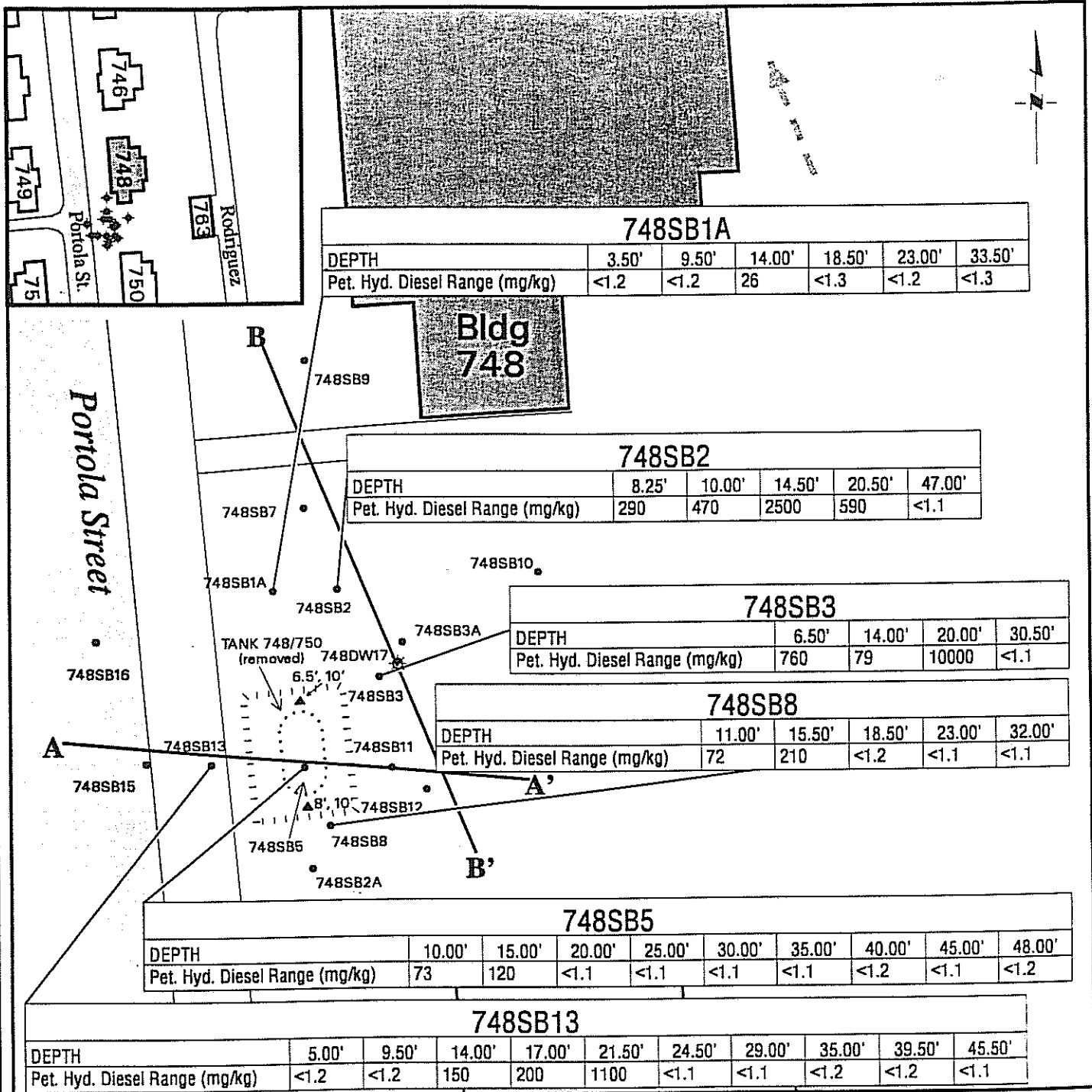
Semivolatile Organic Compounds - EPA Method 8270

Volatile Organic Compounds - EPA Method 8010

Metals - EPA Methods 6010/7000s

Oil & Grease - Standard Methods 5520 EF

Percent Water - ASTM D2216



MONTGOMERY WATSON

PRESIDIO OF SAN FRANCISCO

CALIFORNIA

ADDITIONAL UNDERGROUND STORAGE

TANK INVESTIGATION

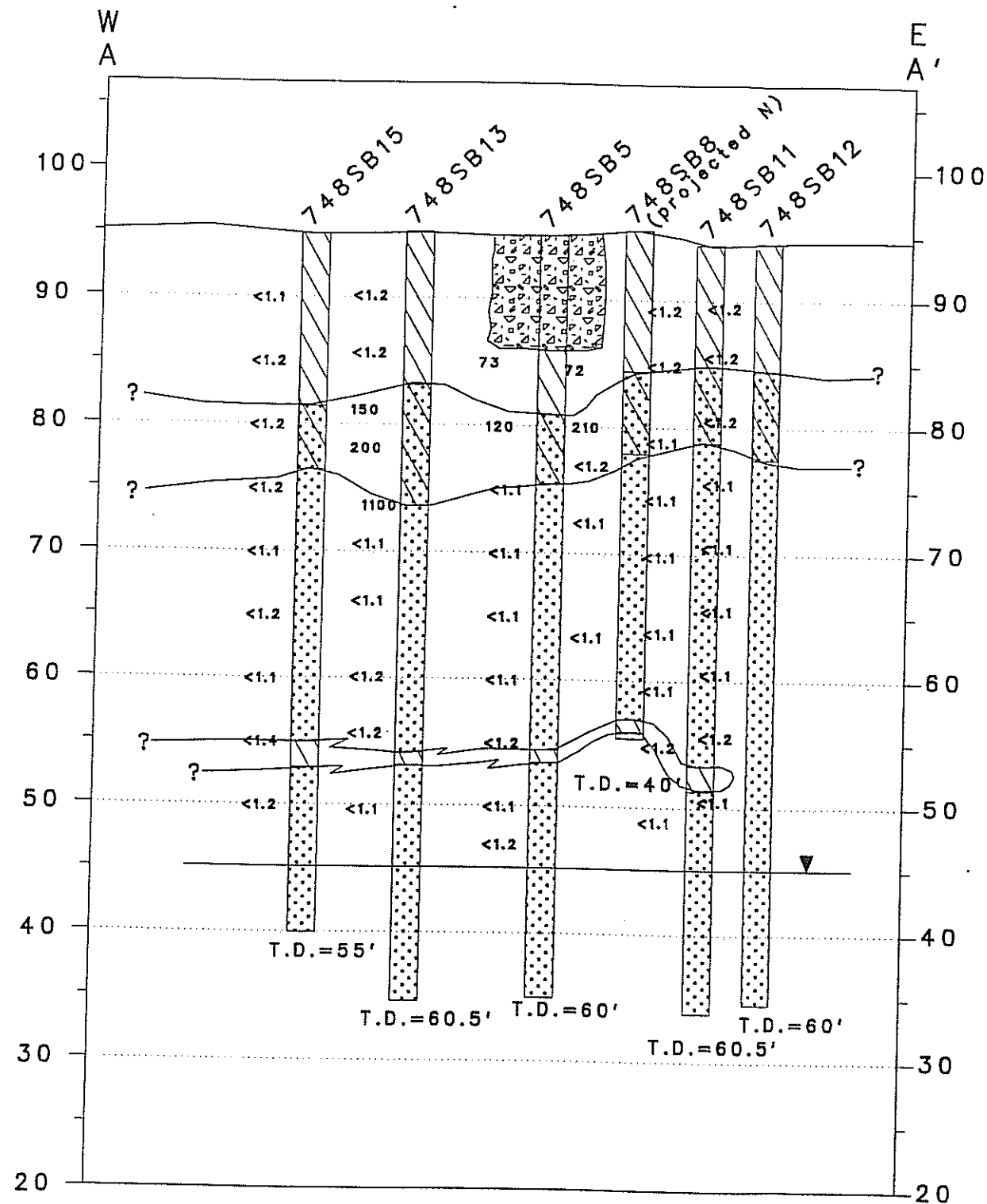
PETROLEUM HYDROCARBONS CONCENTRATION

MAP FOR TANK 748/750

FIGURE 1

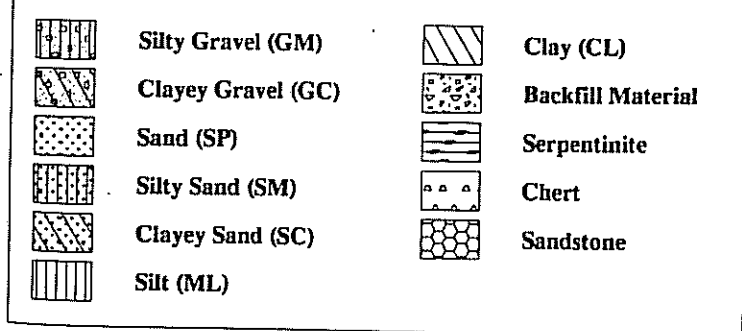
c:\748\1-x\gra 09/05/96 14:14:37 Thu

ELEVATION (FT. LLW)



Note: Excavation location and dimensions are approximate.

Horizontal Scale 1" = 9'
Vertical Scale 1" = 12'

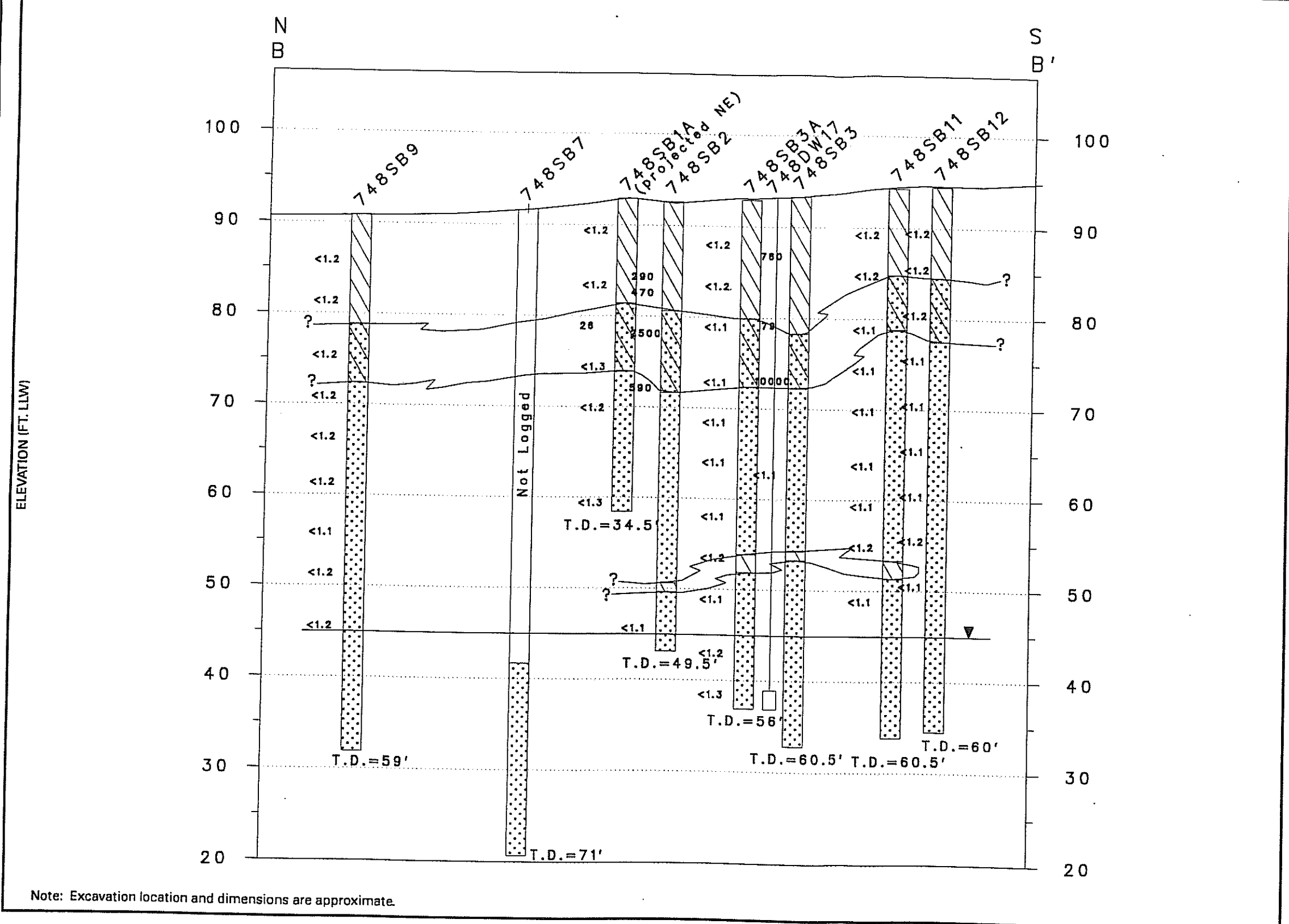


T.D. Total Depth
LLW Lower Low Water Vertical Datum
10 Concentration of Petroleum Hydrocarbons (Diesel Range) in mg/kg posted to left of boring
<1.2 Result is below reporting limit shown
Approximate Water Table

MONTGOMERY WATSON

PRESIDIO OF SAN FRANCISCO CALIFORNIA
ADDITIONAL UNDERGROUND STORAGE
TANK INVESTIGATION
GEOLOGIC CROSS SECTION MAP
FOR TANK 748/750
FIGURE 2

174B.2-x.gra 09/05/96 14:20:34 Thu



	Silty Gravel (GM)		Clay (CL)
	Clayey Gravel (GC)		Backfill Material
	Sand (SP)		Serpentine
	Silty Sand (SM)		Chert
	Clayey Sand (SC)		Sandstone
	Silt (ML)		

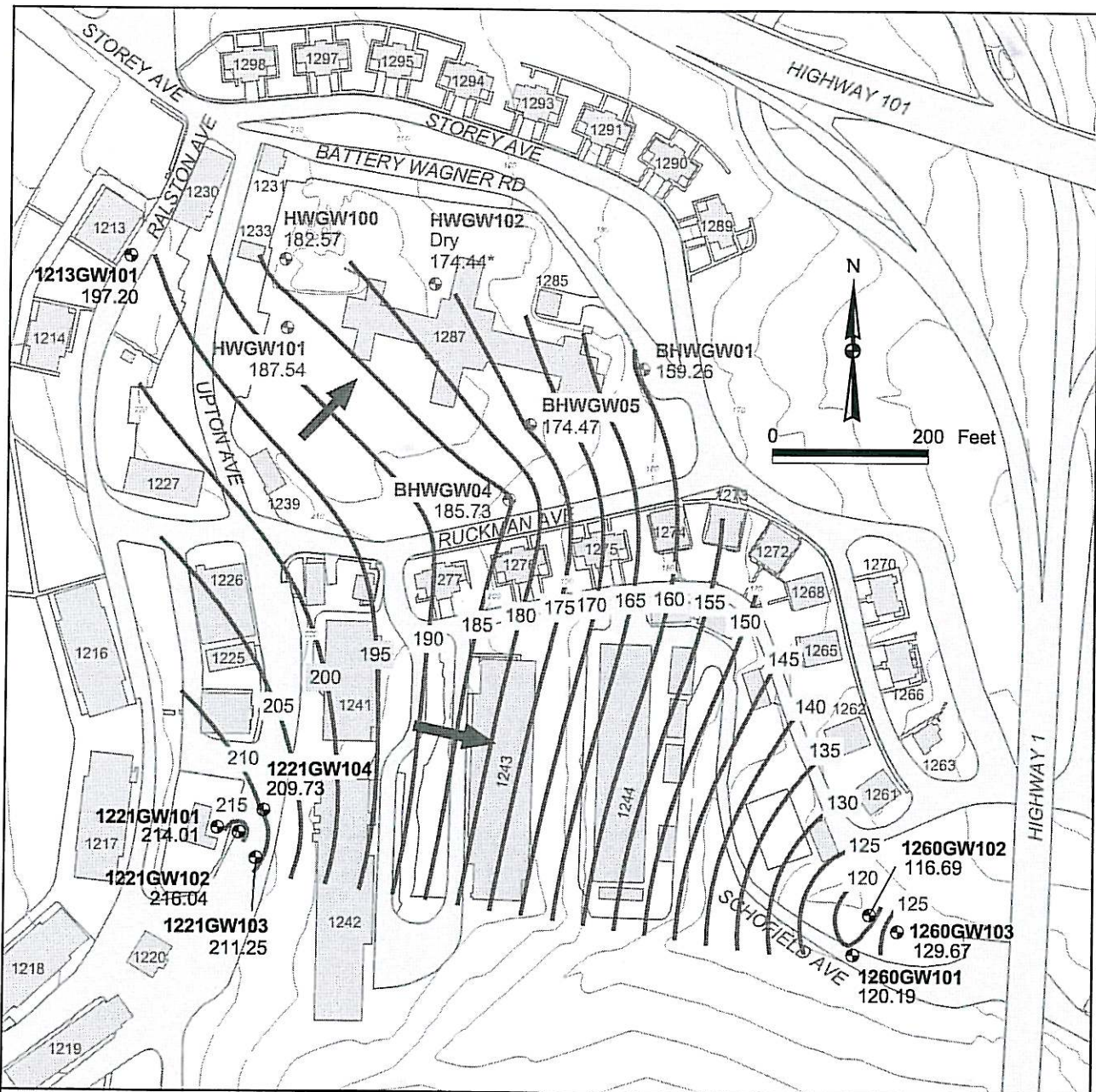
T.D. Total Depth
LLW Lower Low Water Vertical Datum
10 Concentration of Petroleum Hydrocarbons (Diesel Range) in mg/kg posted to left of boring
<1.2 Result is below reporting limit shown

Hydropunch Location and Sample Interval
 Approximate Water Table

MONTGOMERY WATSON
PRESIDIO OF SAN FRANCISCO CALIFORNIA
ADDITIONAL UNDERGROUND STORAGE
TANK INVESTIGATION
GEOLOGIC CROSS SECTION MAP
FOR TANK 748/750
FIGURE 3

Appendix F-4

FDS Sections MT-3 and MT-4 Historical Documents



LEGEND



Approximate Direction
of Groundwater Flow



Groundwater Contour
(Contour Interval : 5 ft)



Topographic Contour
(Contour Interval : 10 ft)



Building and Number



1221GW101 Groundwater Monitoring Well
214.01 February 2007 Groundwater Elevation



HWGW101 Adjacent Study Area Well
187.54 February 2007 Groundwater Elevation

174.44* Value Indicates Bottom of
Casing Elevation in Feet PLLW

Notes:

Groundwater elevation data collected
on 26 February 2007.

Horizontal Datum: NAD 27, CA State
Plane Coordinates, Zone 3, feet

Vertical Datums: (groundwater) Presidio
Lower Low Water (ft. PLLW)
(topography) North American Vertical
Datum, NAVD88

MINI-CAP AREA 1 SITE PLAN AND 26 FEBRUARY 2007 GROUNDWATER ELEVATION MAP

Treadwell & Rollo



Presidio Trust

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San Francisco, CA
94129-0052
415/561-5300
fax 561-5315
October 2007

FIGURE A-12-1

Table A-12-5
Groundwater Elevation Summary
Mini-CAP Areas
Presidio of San Francisco, California

Well ID	Date	Average Depth to Water ¹ (feet)	Top of Casing Elevation (feet PLLW)	Groundwater Elevation (feet PLLW)	Well Type
FM14EX07GW101	06/04/07	28.86	183.43	154.57	MW
	02/26/07	28.40	183.43	155.03	MW
	12/04/06	30.04	183.43	153.39	MW
	08/14/06	27.05	183.43	156.38	MW
	05/22/06	23.21	183.43	160.22	MW
	03/06/06	23.90	183.43	159.53	MW
	11/28/05	27.79	183.43	155.64	MW
FM14EX07GW102	06/04/07	26.42	173.29	146.87	MW
	02/26/07	25.94	173.29	147.35	MW
	12/04/06	27.30	173.29	145.99	MW
	08/14/06	25.45	173.29	147.84	MW
	05/22/06	24.60	173.29	148.69	MW
	03/06/06	24.11	173.29	149.18	MW
	11/28/05	25.86	173.29	147.43	MW
1213GW101	06/04/07	27.52	221.35	193.83	MW
	02/26/07	24.15	221.35	197.20	MW
	12/04/06	29.86	221.35	191.49	MW
	08/14/06	23.75	221.35	197.60	MW
	05/22/06	18.34	221.35	203.01	MW
	03/06/06	22.01	221.35	199.34	MW
	11/28/05	29.27	221.35	192.08	MW
1221GW101	02/26/07	9.58	223.59	214.01	MW
	12/04/06	9.70	223.59	213.89	MW
	08/14/06	8.51	223.59	215.08	MW
	05/22/06	6.92	223.59	216.67	MW
	03/06/06	10.28	223.59	213.31	MW
	11/28/05	14.79	223.59	208.80	MW
1221GW102	02/26/07	7.42	223.46	216.04	MW
	12/04/06	8.46	223.46	215.00	MW
	08/14/06	9.73	223.46	213.73	MW
	05/22/06	7.86	223.46	215.60	MW
	03/06/06	6.80	223.46	216.66	MW
	11/28/05	8.89	223.46	214.57	MW
1221GW103	02/26/07	12.09	223.34	211.25	MW
	12/04/06	13.05	223.34	210.29	MW
	08/14/06	11.44	223.34	211.90	MW
	05/22/06	9.68	223.34	213.66	MW
	03/06/06	10.20	223.34	213.14	MW
	11/28/05	14.21	223.34	209.13	MW

Table A-12-5
Groundwater Elevation Summary
Mini-CAP Areas
Presidio of San Francisco, California

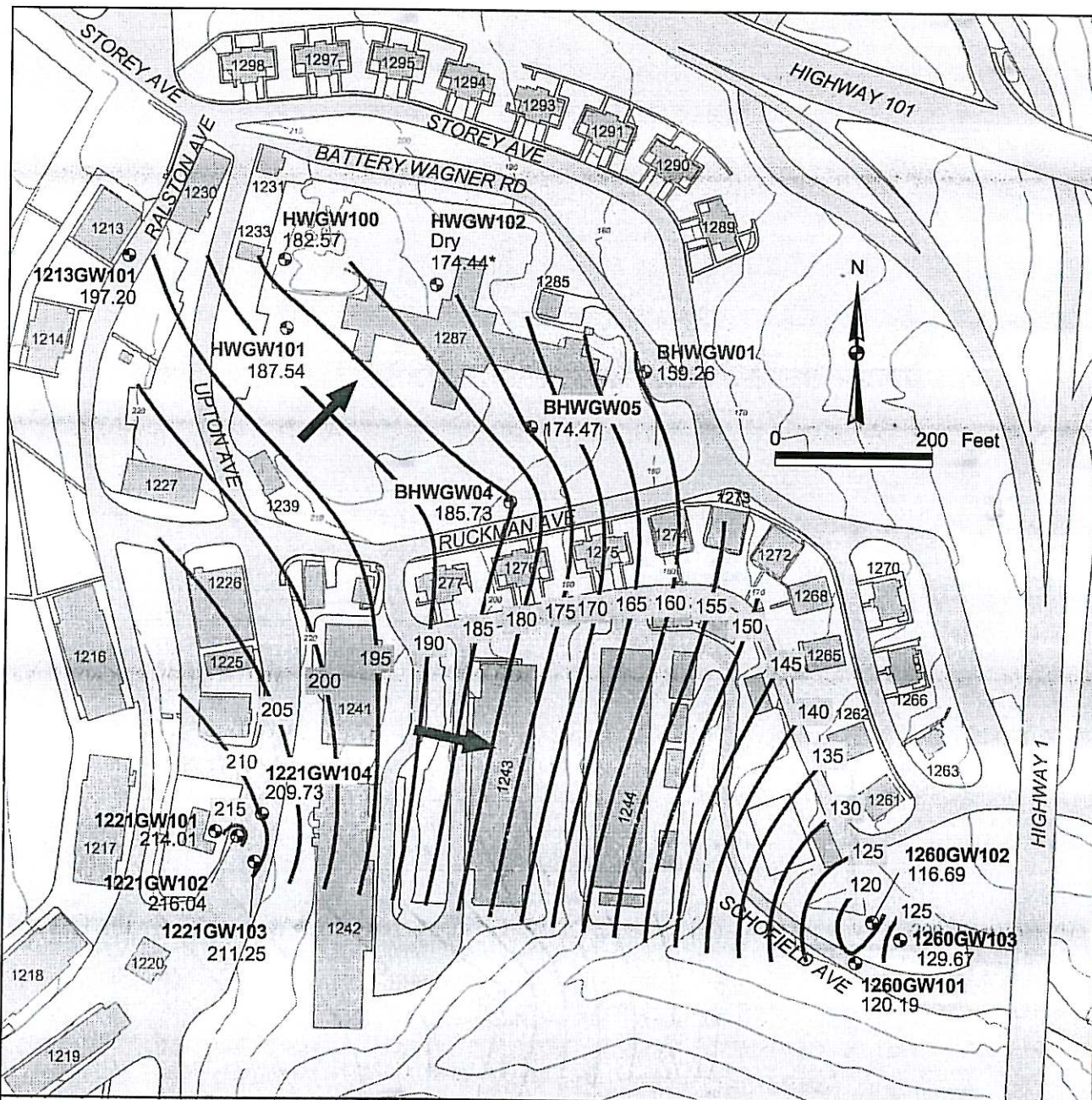
Well ID	Date	Average Depth to Water ¹ (feet)	Top of Casing Elevation (feet PLLW)	Groundwater Elevation (feet PLLW)	Well Type
1221GW104	02/26/07	13.66	223.39	209.73	MW
	12/04/06	16.59	223.39	206.80	MW
	08/14/06	15.36	223.39	208.03	MW
	05/22/06	12.47	223.39	210.92	MW
	03/06/06	12.00	223.39	211.39	MW
	11/28/05	16.52	223.39	206.87	MW
1260GW101	02/26/07	25.57	145.76	120.19	MW
	12/04/06	17.50	145.76	128.26	MW
	08/14/06	10.80	145.76	134.96	MW
	05/22/06	6.46	145.76	139.30	MW
	03/06/06	10.24	145.76	135.52	MW
	11/28/05	17.35	145.76	128.41	MW
1260GW102	02/26/07	29.22	145.91	116.69	MW
	12/04/06	26.60	145.91	119.31	MW
	08/16/06	20.80	145.91	125.11	MW
	05/22/06	19.49	145.91	126.42	MW
	03/06/06	21.15	145.91	124.76	MW
	11/28/05	26.47	145.91	119.44	MW
1260GW103	02/26/07	16.22	145.89	129.67	MW
	12/04/06	29.70	145.89	116.19	MW
	08/14/06	25.68	145.89	120.21	MW
	05/22/06	21.64	145.89	124.25	MW
	03/06/06	25.15	145.89	120.74	MW
	11/28/05	29.49	145.89	116.40	MW
514AGW101	02/26/07	21.47	201.34	179.87	MW
	12/04/06	21.40	201.34	179.94	MW
	08/14/06	20.30	201.34	181.04	MW
	05/22/06	20.09	201.34	181.25	MW
	03/06/06	20.23	201.34	181.11	MW
	11/28/05	21.46	201.34	179.88	MW

Notes

1 - All depth to water measurements are an average of three measurements recorded in the field.

MW - Monitoring well

feet PLLW - feet above Presidio lower low water vertical datum



LEGEND



Approximate Direction
of Groundwater Flow



Groundwater Contour
(Contour Interval : 5 ft)



Topographic Contour
(Contour Interval : 10 ft)



Building and Number



1221GW101 Groundwater Monitoring Well
214.01 February 2007 Groundwater Elevation



HWGW101 Adjacent Study Area Well
187.54 February 2007 Groundwater Elevation



174.44* Value Indicates Bottom of
Casing Elevation in Feet PLLW

Notes:

Groundwater elevation data collected
on 26 February 2007.

Horizontal Datum: NAD 27, CA State
Plane Coordinates, Zone 3, feet

Vertical Datums: (groundwater) Presidio
Lower Low Water (ft. PLLW)
(topography) North American Vertical
Datum, NAVD88

MINI-CAP AREA 1 SITE PLAN AND 26 FEBRUARY 2007 GROUNDWATER ELEVATION MAP

Treadwell&Rollo



Presidio Trust

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October 2007

FIGURE A-12-1



**SEMI-ANNUAL GROUNDWATER MONITORING REPORT
THIRD AND FOURTH QUARTERS 2005
PRESIDIO-WIDE QUARTERLY GROUNDWATER MONITORING PROGRAM
PRESIDIO OF SAN FRANCISCO, CALIFORNIA**

Prepared for:

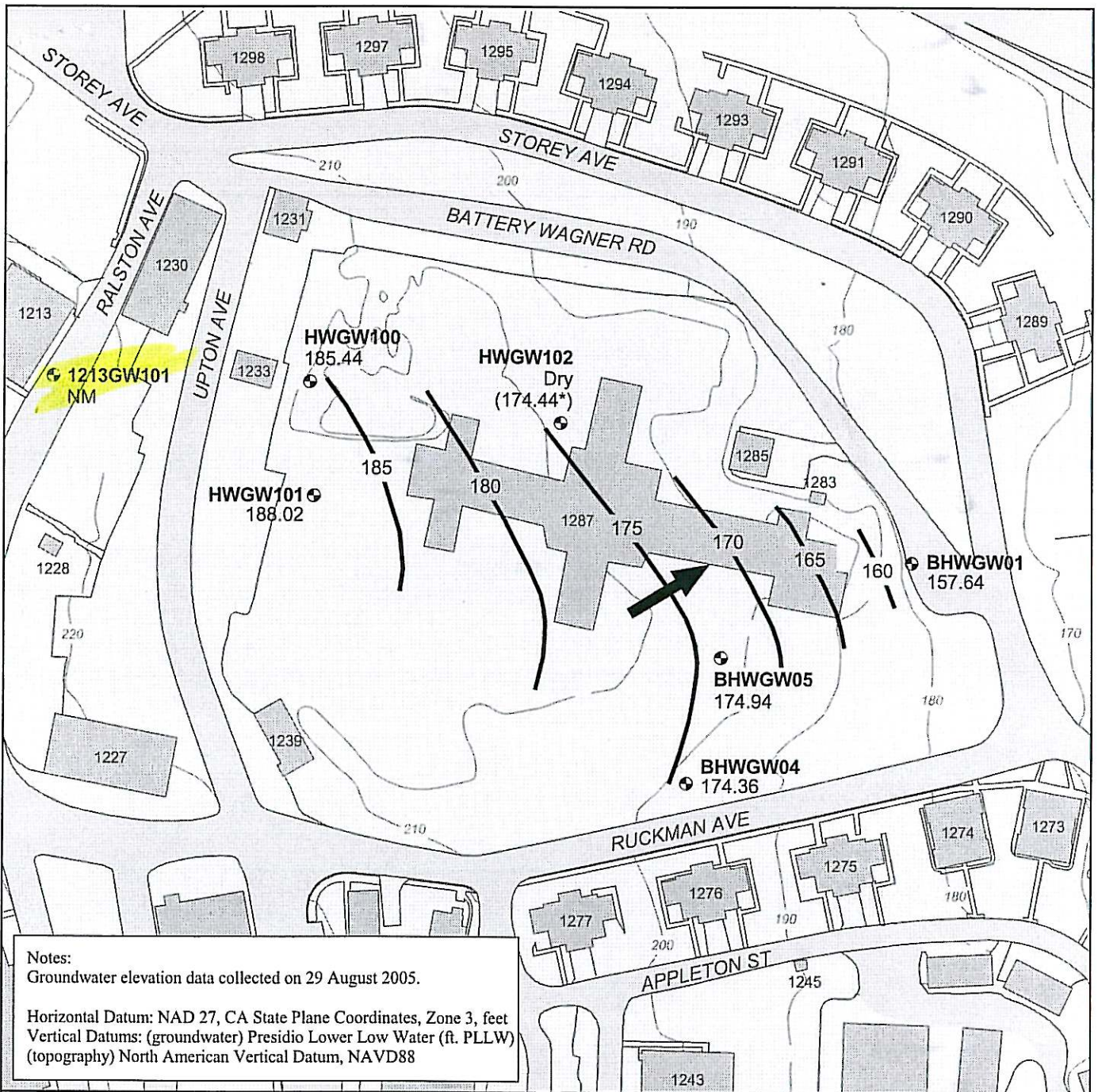
**The Presidio Trust
34 Graham Street, P.O. Box 29052
San Francisco, CA 94129-0052
415/561-5300 Fax 561-5315**

Prepared by:

**Treadwell & Rollo, Inc.
555 Montgomery Street, suite 1300
San Francisco, California 94111
415/955-9040 Fax 955-9041**

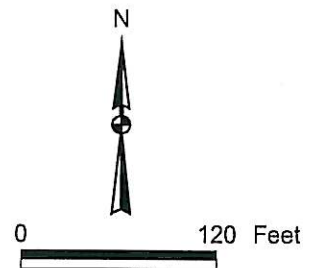
April 2006

Treadwell & Rollo



LEGEND

- | | | | | |
|--|---|--|---------------------------------------|--|
| | Approximate Direction of Groundwater Flow | | HWGW101
157.64
(174.44*) | Groundwater Monitoring Well
August 2005 Groundwater Elevation
Value Indicates Bottom of
Casing Elevation in Feet PLLW |
| | Groundwater Contour
(Contour Interval : 5 ft) | | 1213GW101
NM | Adjacent Study Area Well
Not Measured. Well 1213MW101 was
recently installed and therefore not sampled
or measured during the Third Quarter 2005. |
| | Topographic Contour
(Contour Interval : 10 ft) | | | |
| | 1287 Building and Number | | | |



BATTERY HOWE/WAGNER SITE PLAN AND 29 AUGUST 2005 GROUNDWATER ELEVATION MAP

Treadwell&Rollo



Presidio Trust

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fax 561-5315
April 2006

FIGURE A-4-1

Appendix G
Selected Excerpts from FDS Removal Report (IT, 1999)
(included as CD)

Appendix H

Borehole Logs

SAMPLE LOCATION BR1-1SB01						Project: Fuel Distribution System Field Sampling Plan Project Number: A70004.16					SOIL SAMPLER S. Gillispie		DATE AND TIME SAMPLED 9/24/07 10:00	
SAMPLE LOCATION DESCRIPTION Ralston Ave., near Building 1203											WEATHER/TEMP sunny, warm		INITIAL SURFACE COMPLETION 6 inches of concrete	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Type II/V portland cement				SAMPLING EQUIPMENT Hand Auger		DRILLING METHOD Hand Auger		
Depth Interval	Stratigraphic Name (USCS)	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a) %	Sand (a) %	Silt (a) %	Clay (a) %	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)	
											d m m-w w	st mo wk no		
0-2.5	silty sand	0.0	x			10 YR 1/1	-	80	20	-	m	no	fine-medium sand	

Soil Sample ID	Collection Time	Soil Sampler
BR1-1SB01(2.0)	10:10	Hand Auger
DUP-1-092407	10:10	Hand Auger

Notes:

Notes:

(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were submitted for grain size distribution or other geotechnical analysis.

SAMPLE LOCATION BR1-1SB02						Project: Fuel Distribution System Field Sampling Plan						SOIL SAMPLER S. Gillispie		DATE AND TIME SAMPLED 9/24/07 10:00	
SAMPLE LOCATION DESCRIPTION Ralston Ave., near Building 1203						Project Number: A70004.16						WEATHER/TEMP sunny, cool		INITIAL SURFACE COMPLETION 6 inches of concrete	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Type II/V portland cement				SAMPLING EQUIPMENT Hand Auger		DRILLING METHOD Hand Auger			
Depth Interval	Stratigraphic Name (USCS)	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a)	Sand (a)	Silt (a)	Clay (a)	Moisture d m m-w w	Odor st mo wk no	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)		
							%	%	%	%					
0-5.0	poorly graded sand	0.0	x			10 YR 3/1	-	95	5	-	m	no	fine-medium sand		

Soil Sample ID	Collection Time	Soil Sampler
BR1-1SB02(4.5)	10:20	Hand Auger

Notes:
MS/MSD sample

Notes:

(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were submitted for grain size distribution or other geotechnical analysis.

SAMPLE LOCATION BR1-1SB03						Project: Fuel Distribution System Field Sampling Plan Project Number: A70004.16					SOIL SAMPLER Z. Maliga		DATE AND TIME SAMPLED 9/27/07 12:20	
SAMPLE LOCATION DESCRIPTION next to Building 1206											WEATHER/TEMP foggy/ 70°F		INITIAL SURFACE COMPLETION 5.5 inches of asphalt	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Type II/V portland cement				SAMPLING EQUIPMENT Hand Auger		DRILLING METHOD Hand Auger		
Depth Interval	Stratigraphic Name (USCS)	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a) %	Sand (a) %	Silt (a) %	Clay (a) %	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)	
											d m m-w w	st mo wk no		
0-3.0	Silt	0.0	x			75 YR 2.5/2	tr	10	30	60	m	no	brick fragments, mottled clay	

Soil Sample ID	Collection Time	Soil Sampler
BR1-1SB03(2.0)	12:25	Hand Auger

Notes:

Notes:

(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were submitted for grain size distribution or other geotechnical analysis.

SAMPLE LOCATION BR1-2SB01						Project: Fuel Distribution System Field Sampling Plan						SOIL SAMPLER Z. Maliga		DATE AND TIME SAMPLED 9/24/07 9:30	
SAMPLE LOCATION DESCRIPTION Next to Building 1206						Project Number: A70004.16						WEATHER/TEMP sunny/ 70°F		INITIAL SURFACE COMPLETION 3 inches of asphalt	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Type II/V portland cement				SAMPLING EQUIPMENT Hand Auger		DRILLING METHOD Hand Auger			
Depth Interval	Stratigraphic Name (USCS)	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a) %	Sand (a) %	Silt (a) %	Clay (a) %	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)		
											d m m-w w	st mo wk no			
0-1.0	silty sand with gravel	0.0	x			10 YR 2/2	20	40	40	-	d	no			
1.0-3.0	silt	0.0	x			10 YR 2/1	-	5	55	40	m	no	strong mottling; black and reddish brown fill		
3.0-4.0	silt	0.0			x	10 YR 4/3	-	5	55	40	m	no	brick fragments		

Soil Sample ID	Collection Time	Soil Sampler
BR1-2SB01(3.0)	9:35	Hand Auger

Notes:

Brick fragments encountered at 4 ft bgs, likely to be edge of sewer line. Borehole terminated and alternate hole to be drilled to 7 ft bgs further west of original borehole location.

Notes:

(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were submitted for grain size distribution or other geotechnical analysis.

SAMPLE LOCATION BR1-2SB01 (alt)						Project: Fuel Distribution System Field Sampling Plan					SOIL SAMPLER Z. Maliga		DATE AND TIME SAMPLED 9/24/07 10:00	
SAMPLE LOCATION DESCRIPTION next to Building 1206 (west of SB01)						Project Number: A70004.16					WEATHER/TEMP sunny/ 70°F		INITIAL SURFACE COMPLETION 3 inches of asphalt	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Type II/V portland cement				SAMPLING EQUIPMENT Rhino Rig		DRILLING METHOD Direct Push		
Depth Interval	Stratigraphic Name (USCS)	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a)	Sand (a)	Silt (a)	Clay (a)	Moisture d m m-w w	Odor st mo wk no	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)	
							%	%	%	%				
0-1.0	silty sand with gravel	0.0	x			10 YR 2/2	20	40	40	-	d	no		
1.0-3.0	silt	0.0	x			5 YR 5/6	-	5	55	40	m	no		
3.0-6.0	silt	0.0			x	5 YR 4/1	-	5	55	40	m	no		
6.5-7.0	serpentinite bedrock	0.0			x	5 YR 4/1	-	-	-	-	m	no		

Soil Sample ID	Collection Time	Soil Sampler
BR1-2SB01(6.5)	10:05	Butyrate

Notes:

Hand augered to 5 ft bgs
direct push to 7 ft bgs

Notes:

(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were submitted for grain size distribution or other geotechnical analysis.

SAMPLE LOCATION BR1-2SB02						Project: Fuel Distribution System Field Sampling Plan Project Number: A70004.16						SOIL SAMPLER Z. Maliga		DATE AND TIME SAMPLED 9/24/07 10:55	
SAMPLE LOCATION DESCRIPTION Next to Building 1206												WEATHER/TEMP sunny/ 70°F		INITIAL SURFACE COMPLETION 4 inches of asphalt	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Type II/V portland cement				SAMPLING EQUIPMENT Hand Auger / Rhino Rig			DRILLING METHOD Direct Push		
Depth Interval	Stratigraphic Name (USCS)	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a) %	Sand (a) %	Silt (a) %	Clay (a) %	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)		
											d m m-w w	st mo wk no			
0-1.0	slit with sand and gravel	0.3	x			5 YR 2.5/2	15	20	45	20	m	wk	pieces of asphalt (petroleum hydrocarbon odor)		
1.0-7.0	sand silt	0.0	x			5 YR 4/6	-	30	50	20	m	wk	v. weak petroleum odor (nothing detected with OVM)		

Soil Sample ID	Collection Time	Soil Sampler
BR1-2SB02(3.0)	11:09	Hand Auger
BR1-2SB02(6.5)	11:20	Butyrate

Notes: Hand augered to 5 ft bgs. Direct push to 7 ft bgs.
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Notes:

(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were submitted for grain size distribution or other geotechnical analysis.

SAMPLE LOCATION BR1-2SB03						Project: Fuel Distribution System Field Sampling Plan						SOIL SAMPLER Z. Maliga		DATE AND TIME SAMPLED 9/24/07 10:30	
SAMPLE LOCATION DESCRIPTION next to Building 1206						Project Number: A70004.16						WEATHER/TEMP sunny/ 70°F		INITIAL SURFACE COMPLETION 4 inches of asphalt	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Type II/V portland cement				SAMPLING EQUIPMENT Rhino Rig		DRILLING METHOD Direct Push			
Depth Interval	Stratigraphic Name (USCS)	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a)	Sand (a)	Silt (a)	Clay (a)	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)		
							%	%	%	%	d m m-w w	st mo wk no			
0-1.0	silty sand with gravel	0.0	x			10 YR 2/2	25	40	20	15	m	wk			
1.0-3.0	silt with sand	0.0	x			5 YR 5/6	-	15	60	25	m	wk			
3.0-7.0	silt	0.0			x	5 YR 4/1	-	10	70	20	m	no	petroleum hydrocarbon odor at 6.5 ft bgs		

Soil Sample ID	Collection Time	Soil Sampler
BR1-2SB03(6.5)	10:45	Butyrate

Notes:

 Hand augered to 5 ft bgs.
 Direct push to 7 ft bgs.

Notes:

(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were submitted for grain size distribution or other geotechnical analysis.

SAMPLE LOCATION BR1-2SB04						Project: Fuel Distribution System Field Sampling Plan Project Number: A70004.16						SOIL SAMPLER Z. Maliga		DATE AND TIME SAMPLED 9/24/07 14:10	
SAMPLE LOCATION DESCRIPTION Next to Building 1207												WEATHER/TEMP Sunny		INITIAL SURFACE COMPLETION 4.5 inches of asphalt	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Type II/V portland cement				SAMPLING EQUIPMENT Hand Auger / Rhino Rig		DRILLING METHOD Direct Push			
Depth Interval	Stratigraphic Name (USCS)	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a) %	Sand (a) %	Silt (a) %	Clay (a) %	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)		
											d m m-w w	st mo wk no			
0-1.5	silty sand with gravel	0.0	x			10 YR 2/1	20	35	30	15	m	no			
1.5-4.0	silt with sand	0.0			x	10 YR 4/4	-	15	70	15	m	no			
4.0-4.5	sandy silt	0.0			x	10 YR 4/4	-	30	45	25	m	no			
4.5-7.0	silty sand	0.0			x	10 YR 4/4	-	60	30	10	m	no			

Soil Sample ID	Collection Time	Soil Sampler
BR1-2SB04(3.0)	14:19	Hand Auger
BR1-2SB04(6.5)	14:31	Butyrate
DUP-3-092407	14:31	Butyrate

Notes:

Hand auger to 5 ft bgs.
Direct push 5-7 ft bgs.

Bentonite chips to grout 5805

Notes:

(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were submitted for grain size distribution or other geotechnical analysis.

SAMPLE LOCATION BR1-2SB05						Project: Fuel Distribution System Field Sampling Plan						SOIL SAMPLER Z. Maliga		DATE AND TIME SAMPLED 9/24/07 12:51	
SAMPLE LOCATION DESCRIPTION next to Building 9207						Project Number: A70004.16						WEATHER/TEMP sunny/ 70°F		INITIAL SURFACE COMPLETION 5 inches of asphalt	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Type II/V portland cement				SAMPLING EQUIPMENT Rhino Rig		DRILLING METHOD Direct Push			
Depth Interval	Stratigraphic Name (USCS)	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a) %	Sand (a) %	Silt (a) %	Clay (a) %	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)		
											d m m-w w	st mo wk no			
0-0.5	silty sand with gravel	0.0	x			10 YR 4/1	20	35	30	15	m	no			
0.5-2.5	silty sand with gravel	0.0	x			10 YR 2/1	15	35	30	20	m	no			
2.5-6.5	sand	0.0	x			2.5 YR 4/2	-	100	-	-	m	no	trench backfill for excavation?		
6.5-7.5	sandy silt	0.0			x	10 YR 4/4	-	40	50	10	m	no			
7.5-9.0	clay	0.0			x	10 YR 4/4	-	10	20	70	m	no			
9.0-9.5	clay	0.0			x	5 YR 5/1	-	10	20	70	m	no			

Soil Sample ID	Collection Time	Soil Sampler
BR1-2SB05(6.0)*	13:16	Butyrate
BR1-2SB05(9.0)	13:21	Butyrate
Br1-2SB05(6.5)	13:29	Butyrate

Notes:

Hand Auger to 6 ft bgs.
 Direct Push to 9.5 ft bgs
 * Sample put on hold because soil was likely excavation backfill.

Notes:

(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were submitted for grain size distribution or other geotechnical analysis.

SAMPLE LOCATION BR1-2SB06						Project: Fuel Distribution System Field Sampling Plan Project Number: A70004.16					SOIL SAMPLER Z. Maliga		DATE AND TIME SAMPLED 9/24/07 13:51	
SAMPLE LOCATION DESCRIPTION next to Building 1205											WEATHER/TEMP sunny/ 70°F		INITIAL SURFACE COMPLETION 3 inches of asphalt	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Type II/V portland cement				SAMPLING EQUIPMENT Rhino Rig		DRILLING METHOD Direct Push		
Depth Interval	Stratigraphic Name (USCS)	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a)	Sand (a)	Silt (a)	Clay (a)	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)	
							%	%	%	%	d m m-w w	st mo wk no		
0-1.0	silty sand with gravel	0.0	x			10 YR 4/1	20	35	30	15	m	no		
1.0-4.0	sandy silt	0.0			x	10 YR 4/4	-	40	50	10	m	no		
4.0-7.0	silty sand	0.0			x	10 YR 4/4	-	65	35	-	m	no		

Soil Sample ID	Collection Time	Soil Sampler
BR1-2SB06(6.5)	13:55	Butyrate

Notes:

Hand augered to 5 ft bgs.
Only 3 inches of recovery from 5 to 7 ft bgs first attempt to sample (soil slipped out), but second try yielded better recovery.
Direct push from 5-7 ft bgs.

Notes:

(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were submitted for grain size distribution or other geotechnical analysis.

SAMPLE LOCATION BR2-2SB01						Project: Fuel Distribution System Field Sampling Plan						SOIL SAMPLER S. Gillispie		DATE AND TIME SAMPLED 10/9/07 15:15	
SAMPLE LOCATION DESCRIPTION Police Station						Project Number: A70004.16						WEATHER/TEMP sunny, cool		INITIAL SURFACE COMPLETION 3.5 inches of asphalt	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Soil Cuttings				SAMPLING EQUIPMENT Hand Auger		DRILLING METHOD Hand Auger			
Depth Interval	Stratigraphic Name (USCS)	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a) %	Sand (a) %	Silt (a) %	Clay (a) %	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)		
											d m m-w w	st mo wk no			
0-1.5	well graded sand with gravel	0.0	x			10 YR 7/1	20	70	10	-	m	no	fine gravel, gravel looks like cement		
1.5 3.5	sandy silt	0.0			x	10 YR 3/4	-	30	50	20	m	no			

Soil Sample ID	Collection Time	Soil Sampler
BR2-2SB01(3.0)	15:25	Hand Auger

Notes: Location re-cored two feet to west, along trench line.

Notes:

(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were submitted for grain size distribution or other geotechnical analysis.

SAMPLE LOCATION BR2-2SB02						Project: Fuel Distribution System Field Sampling Plan						SOIL SAMPLER S. Gillispie	DATE AND TIME SAMPLED 10/9/07 15:40
SAMPLE LOCATION DESCRIPTION Next to Building 1220, Police Station.						Project Number: A70004.16						WEATHER/TEMP cloudy, cool	INITIAL SURFACE COMPLETION 4 inches of asphalt
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Soil Cuttings			SAMPLING EQUIPMENT Hand Auger			DRILLING METHOD Hand Auger	
Depth Interval	Stratigraphic Name (USCS)	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a)	Sand (a)	Silt (a)	Clay (a)	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)
							%	%	%	%	d m m-w w	st mo wk no	
0-2.0	well-graded sand with gravel	0.0	x			10 YR 7/1	20	70	10	-	m	no	
2.0-2.5	sand with gravel	0.0			x	10 YR 4/2	10	50	20	20	m	wk	
2.5-3.0	well-graded sand with gravel	0.0			x	2.5YR 5/3	30	70	-	-	-	no	dark red; angular gravel-possibly chert; potential brick fragments

Soil Sample ID	Collection Time	Soil Sampler
BR2-2SB02(2.0)	15:50	Hand Auger
BR2-2SB02(2.5)	15:55	Hand Auger

Notes:

Sample BR2-2SB02(2.5) put on hold.
Concrete slab encountered at 3 ft bgs.

Notes:

(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were submitted for grain size distribution or other geotechnical analysis.

SAMPLE LOCATION BR2-2SB03						Project: Fuel Distribution System Field Sampling Plan Project Number: A70004.16					SOIL SAMPLER S. Gillispie		DATE AND TIME SAMPLED 10/9/07 15:40	
SAMPLE LOCATION DESCRIPTION Police Station											WEATHER/TEMP cloudy, warm		INITIAL SURFACE COMPLETION 6 inches of asphalt	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Soil Cuttings				SAMPLING EQUIPMENT Hand Auger		DRILLING METHOD Hand Auger		
Depth Interval	Stratigraphic Name (USCS)	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a) %	Sand (a) %	Silt (a) %	Clay (a) %	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)	
											d m m-w w	st mo wk no		
0-1.0	well-graded sand	0.0	x			10 YR 6/1	30	60	10	-	w	no	gravel sized cement pieces	

Soil Sample ID	Collection Time	Soil Sampler
No Sample		

Notes:
 Hit second concrete slab at 1 ft bgs.

Notes:

(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were submitted for grain size distribution or other geotechnical analysis.

SAMPLE LOCATION BR3-1SB01						Project: Fuel Distribution System Field Sampling Plan					SOIL SAMPLER Z. Maliga		DATE AND TIME SAMPLED 9/25/07 8:00	
SAMPLE LOCATION DESCRIPTION Next to Building 1244						Project Number: A70004.16					WEATHER/TEMP sunny/ 75°F		INITIAL SURFACE COMPLETION Soil	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Type II/V portland cement				SAMPLING EQUIPMENT Hand Auger		DRILLING METHOD Hand Auger		
Depth Interval	Stratigraphic Name (USCS)	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a)	Sand (a)	Silt (a)	Clay (a)	Moisture d m m-w w	Odor st mo wk no	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)	
							%	%	%	%				
0-1.0	sand silt	0.0			x	10 YR 2/2	10	35	30	25	m	no	organic topsoil; dried leaves	
1.0-6.5	clay	0.0			x	10 YR 4/6	-	10	15	75	m	no		

Soil Sample ID	Collection Time	Soil Sampler
BR3-1SB01(3.0)	8:15	Hand Auger
BR3-1SB01(6.0)	8:21	Hand Auger

<p>Notes:</p> <p>Overhead obstruction (utility lines), therefore borehole was hand augered.</p>
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Notes:

(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were submitted for grain size distribution or other geotechnical analysis.

SAMPLE LOCATION BR3-1SB03						Project: Fuel Distribution System Field Sampling Plan						SOIL SAMPLER Z. Maliga		DATE AND TIME SAMPLED 9/25/07 10:35	
SAMPLE LOCATION DESCRIPTION Next to Building 1244						Project Number: A70004.16						WEATHER/TEMP sunny/ 75°F		INITIAL SURFACE COMPLETION 5 inches of asphalt	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Type II/V portland cement				SAMPLING EQUIPMENT Rhino Rig		DRILLING METHOD Direct Push			
Depth Interval	Stratigraphic Name (USCS)	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a) %	Sand (a) %	Silt (a) %	Clay (a) %	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)		
											d m m-w w	st mo wk no			
0-4.0	silty sand	0.0	x			N2.5/	-	55	45	-	m	no			
4.0-4.5	sand with silt	0.0			x	2.5 YR 3/2	-	70	20	10	w	no			
4.5-10.0	clay	0.0			x	5 YR 4/6	-	-	10	90	w	no			
10.0-10.5	weathered serpentinite bedrock	0.0			x	5 YR 5/1	-	-	-	-	m	no			

Soil Sample ID	Collection Time	Soil Sampler
BR3-1SB03(4.0)	10:42	Butyrate
BR3-1SB03(5.5)	10:50	Butyrate
BR3-1SB03(10.0)	10:55	Butyrate

Notes:

Hand augered to 4 ft bgs
 Direct push 4-10.5 ft bgs
 Sampled 4-6 (2 ft recovery)
 wet at 4 ft bgs
 Recovery:
 4-6 ft bgs - 2 feet
 6-8 ft bgs - 2 feet
 8-10.5 ft bgs - 2.5 feet bgs

Notes:

(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were submitted for grain size distribution or other geotechnical analysis.

SAMPLE LOCATION BR3-2SB01						Project: Fuel Distribution System Field Sampling Plan						SOIL SAMPLER Z. Maliga		DATE AND TIME SAMPLED 9/26/07 8:00	
SAMPLE LOCATION DESCRIPTION Ten feet east of Tree #5231.						Project Number: A70004.16						WEATHER/TEMP sunny/ 75°F		INITIAL SURFACE COMPLETION forest	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Type II/V portland cement				SAMPLING EQUIPMENT Rhino Rig		DRILLING METHOD Direct Push			
Depth Interval	Stratigraphic Name (USCS)	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a)	Sand (a)	Silt (a)	Clay (a)	Moisture d m m-w w	Odor st mo wk no	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)		
							%	%	%	%					
0-0.5	sity sand	0.0	x			10 YR 3/4	-	55	45	-	d m	no	topsoil		
0.5-9.5	silty sand	0-1.6	x			10 YR 4/4	-	60	40	-	m	no			
9.5-20	sity sand	0.0			x	10 YR 4/4	-	60	40	-	m	no			

Soil Sample ID	Collection Time	Soil Sampler
BR3-2SB01(9.5)	9:19	Butyrate
BR3-2SB01(14.5)	9:30 (hold)	Butyrate
BR3-2SB01(19.5)	9:42 (hold)	Butyrate

Notes:

Hand augered to 4 ft bgs
 Direct push 4 - 20 ft bgs
 4-8 ft bgs (4 ft recovery)
 8-12 ft bgs (4 ft recovery)
 12-16 ft bgs (4 ft recovery)
 16-20 ft bgs (4 ft recovery)

Notes:

(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were submitted for grain size distribution or other geotechnical analysis.

SAMPLE LOCATION BR3-2SB02						Project: Fuel Distribution System Field Sampling Plan Project Number: A70004.16	SOIL SAMPLER Z. Maliga					DATE AND TIME SAMPLED 9/26/07 8:56		
SAMPLE LOCATION DESCRIPTION Next to Building 1241 loading dock							WEATHER/TEMP sunny/ 75°F					INITIAL SURFACE COMPLETION 5 inches of asphalt		
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Type II/V portland cement					SAMPLING EQUIPMENT Hand Auger / Rhino Rig		DRILLING METHOD Direct Push	
Depth Interval	Stratigraphic Name (USCS)	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a) %	Sand (a) %	Silt (a) %	Clay (a) %	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)	
											d m m-w w	st mo wk no		
0-7.0	silt with sand	7.2 bag	x	x?		7.5 YR 2.5/1	-	15	70	15	m	wk	excavation back fill material, trace gravel	
7.0-8.0	gravel	-	x			N/6	90	5	5	-	d	no	base rock, gray	
8.0-10.5	weathered sepeintinite	5.1			x	10 YR 6/8	40	30	30	-	m	wk	weak petroleum hydrocarbon odor; greenish gray	

Soil Sample ID	Collection Time	Soil Sampler
BR3-1SB02(5.0)	9:23	Butyrate
BR3-1SB02(10.0)	9:32	Butyrate
DUP-2-092507	9:32	Butyrate
BR3-1SB02(2.0)	9:10 (hold)	Hand Auger

Notes:

Location 10 ft from FDS line, at edge of over excavation.
Asphalt cored using Rhino cookie cutter.
Hand augered to 2 ft bgs
Direct push 2-10.5 ft bgs
2-4 ft bgs (2 ft recovery)
4-8 ft bgs (2.5 ft recovery)
8-10.5 ft bgs (2.5 ft recovery)

Notes:

(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were submitted for grain size distribution or other geotechnical analysis.

SAMPLE LOCATION BR5-2SB01						Project: Fuel Distribution System Field Sampling Plan					SOIL SAMPLER S. Gillispie		DATE AND TIME SAMPLED 9/24/07 13:50	
SAMPLE LOCATION DESCRIPTION Hitchcock St., near Building 1328						Project Number: A70004.16					WEATHER/TEMP sunny, cool		INITIAL SURFACE COMPLETION 6 inches of concrete	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Type II/V portland cement					SAMPLING EQUIPMENT Hand Auger		DRILLING METHOD Hand Auger	
Depth Interval	Stratigraphic Name (USCS)	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a)	Sand (a)	Silt (a)	Clay (a)	Moisture d m m-w w	Odor st mo wk no	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)	
							%	%	%	%				
0-3.0	clay with sand	5.0			x	10 YR 2/1	-	50	10	40	m	st	fine sand	

Soil Sample ID	Collection Time	Soil Sampler
BR5-2SB01(2.5)	14:00	Hand Auger

Notes:

Notes:

(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were submitted for grain size distribution or other geotechnical analysis.

SAMPLE LOCATION BR5-2SB03(alt)						Project: Fuel Distribution System Field Sampling Plan Project Number: A70004.16						SOIL SAMPLER Z. Maliga		DATE AND TIME SAMPLED 9/28/07 12:47	
SAMPLE LOCATION DESCRIPTION Next to Building 1323, location closer to Building 1328B than BR5-2SB03												WEATHER/TEMP Overcast/ 65°F		INITIAL SURFACE COMPLETION 6 inches of asphalt	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Soil Cuttings			SAMPLING EQUIPMENT Hand Auger			DRILLING METHOD Not Applicable			
Depth Interval	Stratigraphic Name (USCS)	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a) %	Sand (a) %	Silt (a) %	Clay (a) %	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)		
											d m m-w w	st mo wk no			
0-1.0	baserock	0.0	x			N4/	30	30	20	20	m	no			
1.0-1.5	topsoil	0.0	x			10 YR 4/5	-	-	-	-	m	no			
1.5-3.0	weathered serpentinite				x	5YR 4/2	-	-	-	-	d-m	no			

Soil Sample ID	Collection Time	Soil Sampler
BR5-2SB03(2.5)	12:54	Hand Auger

Notes:

6 inches of asphalt with 2 inches of cement beneath.

Notes:

(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were submitted for grain size distribution or other geotechnical analysis.

SAMPLE LOCATION BR5-2SB04						Project: Fuel Distribution System Field Sampling Plan						SOIL SAMPLER Z. Maliga		DATE AND TIME SAMPLED 9/28/07 12:12	
SAMPLE LOCATION DESCRIPTION Next to Building 1328 steps						Project Number: A70004.16						WEATHER/TEMP Rainy/ 60°F		INITIAL SURFACE COMPLETION 8 inches of asphalt	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Soil Cuttings				SAMPLING EQUIPMENT Hand Auger		DRILLING METHOD NA			
Depth Interval	Stratigraphic Name (USCS)	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a) %	Sand (a) %	Silt (a) %	Clay (a) %	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)		
											d m m-w w	st mo wk no			
0-3.0	sandy clay	7.8	x	x?		N2.5/	-	30	30	40	m	wk-mo	weak-moderate petroleum hydrocarbon odor, black		
3.0-3.5	serpentinite	19				N2.5/1	-	-	-	-	m	wk-mo	bedrock		

Soil Sample ID	Collection Time	Soil Sampler
BR5-2SB04(2.0)	12:15 (hold)	Hand Auger
BR5-2SB04(3.0)	12:23	Hand Auger

Notes:

2 ft bgs (OVM = 7.8 ppm)
3 ft bgs (OVM = 19 ppm)

Notes:

(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were submitted for grain size distribution or other geotechnical analysis.

SAMPLE LOCATION BR5-2SB05						Project: Fuel Distribution System Field Sampling Plan						SOIL SAMPLER S. Gillispie		DATE AND TIME SAMPLED 9/24/07 13:50	
SAMPLE LOCATION DESCRIPTION Hitchcock St., near Building 1328						Project Number: A70004.16						WEATHER/TEMP sunny, cool		INITIAL SURFACE COMPLETION 6 inches of concrete	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Type II/V portland cement				SAMPLING EQUIPMENT Hand Auger		DRILLING METHOD Hand Auger			
Depth Interval	Stratigraphic Name (USCS)	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a) %	Sand (a) %	Silt (a) %	Clay (a) %	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)		
											d m m-w w	st mo wk no			
0-3.0	clay with sand	8.0			x	10 YR 2/1	-	50	10	40	m	st	fine to medium grained sand		

Soil Sample ID	Collection Time	Soil Sampler
BR5-2SB05(2.5)	14:20	Hand Auger

Notes:

Notes:

(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were submitted for grain size distribution or other geotechnical analysis.

SAMPLE LOCATION BR5-2SB06						Project: Fuel Distribution System Field Sampling Plan						SOIL SAMPLER S. Gillispie		DATE AND TIME SAMPLED 9/24/07 13:50	
SAMPLE LOCATION DESCRIPTION Hitchcock St., near Building 1326						Project Number: A70004.16						WEATHER/TEMP sunny, cool		INITIAL SURFACE COMPLETION 6 inches of concrete	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Type II/V portland cement				SAMPLING EQUIPMENT Hand Auger		DRILLING METHOD Hand Auger			
Depth Interval	Stratigraphic Name (USCS)	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a)	Sand (a)	Silt (a)	Clay (a)	Moisture d m m-w w	Odor st mo wk no	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)		
							%	%	%	%					
0-0.5	gravel	0.0	x			10 YR 3/4	100	-	-	-	m	no	gravel fill		
0.5-3.0	clay with sand	25.0	x		x	10YR2/1	-	20	10	70	m-w	st	fine sand		

Soil Sample ID	Collection Time	Soil Sampler
BR5-2SB06(2.5)	15:30	Hand Auger
DUP-2-092407	15:30	Hand Auger

Notes:

Transition from overburded to native soil not distinguishable.

Notes:

(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were submitted for grain size distribution or other geotechnical analysis.

SAMPLE LOCATION BR5-2SB07						Project: Fuel Distribution System Field Sampling Plan						SOIL SAMPLER S. Gillispie		DATE AND TIME SAMPLED 9/24/07 13:50	
SAMPLE LOCATION DESCRIPTION Hitchcock St., near Building 1320						Project Number: A70004.16						WEATHER/TEMP sunny, cool		INITIAL SURFACE COMPLETION 6 inches of concrete	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Type II/V portland cement				SAMPLING EQUIPMENT Hand Auger		DRILLING METHOD Hand Auger			
Depth Interval	Stratigraphic Name (USCS)	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a)	Sand (a)	Silt (a)	Clay (a)	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)		
							%	%	%	%	d m m-w w	st mo wk no			
0-2.0	poorly graded sand	0.0	x			10 YR 4/4	-	90	5	5	m	no	sand; orange-brown; trace silt and clay		

Soil Sample ID	Collection Time	Soil Sampler
BR5-2SB07(1.5)	15:45	Hand Auger

Notes:

Notes:

(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were submitted for grain size distribution or other geotechnical analysis.

SAMPLE LOCATION BR5-2SB08						Project: Fuel Distribution System Field Sampling Plan						SOIL SAMPLER Z. Maliga		DATE AND TIME SAMPLED 9/28/07 14:00	
SAMPLE LOCATION DESCRIPTION Next to Building 1320A						Project Number: A70004.16						WEATHER/TEMP rainy/ 65°F		INITIAL SURFACE COMPLETION 3.5 inches of asphalt	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Soil Cuttings				SAMPLING EQUIPMENT Hand Auger		DRILLING METHOD Hand Auger			
Depth Interval	Stratigraphic Name (USCS)	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a) %	Sand (a) %	Silt (a) %	Clay (a) %	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)		
											d m m-w w	st mo wk no			
0-2.0	sand with silt and gravel	0.0	x			10 YR 3/4	20	55	15	10	m	no			
3.0-3.5	serpentinite	0.0			x	5G 4/2	-	-	-	-	m	no	bedrock		

Soil Sample ID	Collection Time	Soil Sampler
BR5-2SB08(1.5)	14:22	Hand Auger

Notes:

Notes:

(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were submitted for grain size distribution or other geotechnical analysis.

SAMPLE LOCATION BR5-3SB03						Project: Fuel Distribution System Field Sampling Plan						SOIL SAMPLER S. Gillispie		DATE AND TIME SAMPLED 9/25/07 9:30	
SAMPLE LOCATION DESCRIPTION Hitchcock St., near Building 1328						Project Number: A70004.16						WEATHER/TEMP sunny, warm		INITIAL SURFACE COMPLETION 6 inches of cement	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Type II/V portland cement				SAMPLING EQUIPMENT Hand Auger		DRILLING METHOD Hand Auger			
Depth Interval	Stratigraphic Name (USCS)	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a)	Sand (a)	Silt (a)	Clay (a)	Moisture d m m-w w	Odor st mo wk no	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)		
							%	%	%	%					
0-1.0	poorly graded gravel	0.0	x			10 YR 2/2	100	-	-	-	m	no	gravel road base		
1.0-4.0	poorly graded sand	0.0			x	10 YR 2/2	-	95	5	-	m	no	fine grained, well sorted sand		

Soil Sample ID	Collection Time	Soil Sampler
BR5-3SB03(2.5)	10:30	Hand Auger

Notes:

Notes:

(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were submitted for grain size distribution or other geotechnical analysis.

SAMPLE LOCATION BR5-3SB02						Project: Fuel Distribution System Field Sampling Plan					SOIL SAMPLER S. Gillispie		DATE AND TIME SAMPLED 9/25/07 9:30	
SAMPLE LOCATION DESCRIPTION Hitchcock St., near Building 1328						Project Number: A70004.16					WEATHER/TEMP sunny, cool		INITIAL SURFACE COMPLETION 6 inches of black cement	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Type II/V portland cement				SAMPLING EQUIPMENT Hand Auger		DRILLING METHOD Hand Auger		
Depth Interval	Stratigraphic Name (USCS)	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a) %	Sand (a) %	Silt (a) %	Clay (a) %	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)	
											d m m-w w	st mo wk no		
0-0.5	clay	0.0	x			10 YR 3/2	-	40	-	60	m	no	debris; moist, brown fine sand	
0.5-5.0	sand	0.0	x		x	10 YR 3/2	-	90	10	-	m	no	well sorted, fine grained, brick fragments, fill	

Soil Sample ID	Collection Time	Soil Sampler
BR5-3SB02(2.5)	10:00	Hand Auger

Notes:

Transition from overburden to native is not visible.

Notes:

(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were submitted for grain size distribution or other geotechnical analysis.

SAMPLE LOCATION BR5-3SB03						Project: Fuel Distribution System Field Sampling Plan						SOIL SAMPLER S. Gillispie		DATE AND TIME SAMPLED 9/25/07 9:30	
SAMPLE LOCATION DESCRIPTION Hitchcock St., near Building 1328						Project Number: A70004.16						WEATHER/TEMP sunny, warm		INITIAL SURFACE COMPLETION 6 inches of cement	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Type II/V portland cement				SAMPLING EQUIPMENT Hand Auger		DRILLING METHOD Hand Auger			
Depth Interval	Stratigraphic Name (USCS)	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a)	Sand (a)	Silt (a)	Clay (a)	Moisture d m m-w w	Odor st mo wk no	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)		
							%	%	%	%					
0-1.0	poorly graded gravel	0.0	x			10 YR 2/2	100	-	-	-	m	no	road base		
1.0-4.0	poorly graded sand	0.0			x	10 YR 2/2	-	95	5	-	m	no	well sorted, fine grained sand		

Soil Sample ID	Collection Time	Soil Sampler
BR5-3SB03(2.5)	10:30	Hand Auger

Notes:

Notes:

(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were submitted for grain size distribution or other geotechnical analysis.

SAMPLE LOCATION BR5-3SB04						Project: Fuel Distribution System Field Sampling Plan					SOIL SAMPLER S. Gillispie		DATE AND TIME SAMPLED 9/25/07 9:30	
SAMPLE LOCATION DESCRIPTION Hitchcock St., near Building 1328						Project Number: A70004.16					WEATHER/TEMP sunny, cool		INITIAL SURFACE COMPLETION 6 inches of cement	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Type II/V portland cement					SAMPLING EQUIPMENT Hand Auger		DRILLING METHOD Hand Auger	
Depth Interval	Stratigraphic Name (USCS)	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a) %	Sand (a) %	Silt (a) %	Clay (a) %	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)	
											d m m-w w	st mo wk no		
0-4.0	poorly graded sand	0.0			x	10 YR 3/3	-	95	5	-	m	no	dark brown, no debris; no odors, well sorted sand	

Soil Sample ID	Collection Time	Soil Sampler
BR5-3SB04(2.5)	10:55	Hand Auger

Notes:

Notes:

(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were submitted for grain size distribution or other geotechnical analysis.

SAMPLE LOCATION BR6-1SB01						Project: Fuel Distribution System Field Sampling Plan						SOIL SAMPLER S. Gillispie		DATE AND TIME SAMPLED 9/25/07 14:00	
SAMPLE LOCATION DESCRIPTION Thomas Ave., near Building 328						Project Number: A70004.16						WEATHER/TEMP sunny, cool		INITIAL SURFACE COMPLETION 6 inches of cement	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Type II/V portland cement				SAMPLING EQUIPMENT Hand Auger		DRILLING METHOD Hand Auger			
Depth Interval	Stratigraphic Name (USCS)	OYM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a)	Sand (a)	Silt (a)	Clay (a)	Moisture d m m-w w	Odor st mo wk no	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)		
							%	%	%	%					
0-4.0	poorly graded sand	0.0	x			10 YR 3/4	-	90	10	-	m	no	well sorted sand		

Soil Sample ID	Collection Time	Soil Sampler
BR6-1SB01(1.5)	14:10	Hand Auger
DUP-1-092507	14:10	Hand Auger

Notes:

Notes:

(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were submitted for grain size distribution or other geotechnical analysis.

SAMPLE LOCATION BR6-1SB02						Project: Fuel Distribution System Field Sampling Plan					SOIL SAMPLER S. Gillispie		DATE AND TIME SAMPLED 9/25/07 14:00	
SAMPLE LOCATION DESCRIPTION Thomas Ave., near Building 326						Project Number: A70004.16					WEATHER/TEMP sunny, cool		INITIAL SURFACE COMPLETION 6 inches of cement	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Type II/V portland cement					SAMPLING EQUIPMENT Hand Auger		DRILLING METHOD Hand Auger	
Depth Interval	Stratigraphic Name (USCS)	OYM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a) %	Sand (a) %	Silt (a) %	Clay (a) %	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)	
											d m m-w w	st mo wk no		
0-1.0	sand with gravel	0.0	x			10 YR 3/3	20	70	10	-	d	no		
1.0-4.0	poorly graded sand	0.0	x			10 YR 3/3	-	95	<5	<5	m	no		

Soil Sample ID	Collection Time	Soil Sampler
BR6-1SB02(1.5)	15:05	Hand Auger

Notes:

Notes:

(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were submitted for grain size distribution or other geotechnical analysis.

SAMPLE LOCATION BR6-1SB03						Project: Fuel Distribution System Field Sampling Plan					SOIL SAMPLER S. Gillispie		DATE AND TIME SAMPLED 9/28/07 14:50	
SAMPLE LOCATION DESCRIPTION Thomas Ave., near Building 325						Project Number: A70004.16					WEATHER/TEMP cloudy, warm		INITIAL SURFACE COMPLETION 6 inches of concrete	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Type II/V portland cement					SAMPLING EQUIPMENT Hand Auger		DRILLING METHOD Hand Auger	
Depth Interval	Stratigraphic Name (USCS)	OVM	Overburden?	LTD?	Native?	Munsell Color Code	Gravel (a)	Sand (a)	Silt (a)	Clay (a)	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)	
							%	%	%	%	d m m-w w	st mo wk no		
0-1.0	well-graded sand w/ gravel	0.0	x			10 YR 3/3	20	70	10	-	m	no	sand; w/ gravel & debris; brown	
1.0-4.0	well-graded sand	0.0	x			10 YR 3/4	-	90	10	-	m	no	sand, well sorted; orange; brown	

Soil Sample ID	Collection Time	Soil Sampler
BR6-1SB03(1.5)	15:00	Hand Auger

Notes:

Notes:
(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples w

SAMPLE LOCATION BR6-3SB01						Project: Fuel Distribution System Field Sampling Plan						SOIL SAMPLER Z. Maliga		DATE AND TIME SAMPLED 9/26/07 11:10	
SAMPLE LOCATION DESCRIPTION Building 101 northern entrance						Project Number: A70004.16						WEATHER/TEMP sunny/ 75°F		INITIAL SURFACE COMPLETION 4.5 inches of concrete	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Type II/V portland cement				SAMPLING EQUIPMENT Rhino Rig		DRILLING METHOD Direct Push			
Depth Interval	Stratigraphic Name (USCS)	OYM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a) %	Sand (a) %	Silt (a) %	Clay (a) %	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)		
											d m m-w w	st mo wk no			
0-4	clay	0.0	x			10YR 4/4	-	10	30	60	m	no	red, stiff		
17	silty sand	0.0	x			10YR 4/4	-	60	25	15	m-w	no	gravel at 17 ft bgs, subhorizontal partings from 9-10 ft bgs		
17-20	silty sand	0.0			x	10YR 4/4	-	60	25	15	m-w	no			

Soil Sample ID	Collection Time	Soil Sampler
BR6-3SB01(10.0)	12:44	Butyrate
BR6-3SB01(15.0)	13:00	Butyrate
BR6-3SB01 (20.0)	13:10	Butyrate

Notes:

Notes:

(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples w

SAMPLE LOCATION BR6-3SB02						Project: Fuel Distribution System Field Sampling Plan						SOIL SAMPLER Z. Maliga		DATE AND TIME SAMPLED 9/26/07 11:00	
SAMPLE LOCATION DESCRIPTION Building 101 northern entrance						Project Number: A70004.16						WEATHER/TEMP sunny/ 75°F		INITIAL SURFACE COMPLETION 3 inches of concrete	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Type II/V portland cement				SAMPLING EQUIPMENT Hand Auger		DRILLING METHOD Hand Auger			
Depth Interval	Stratigraphic Name (USCS)	OYM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a) %	Sand (a) %	Silt (a) %	Clay (a) %	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)		
											d m m-w w	st mo wk no			
0-0.5	Gravel with sand	0.0	x			5YR 2.5/2	30	20	20	30	m	no	road base		
0.5-3.5	Clay	0.0			x	2.5Y 5/4	-	-	25	75	m	no	trace sand		

Soil Sample ID	Collection Time	Soil Sampler
BR6-3SB02(2.5)	11:00	Hand Auger

Notes:

Notes:

(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples w

SAMPLE LOCATION BR6-3SB03						Project: Fuel Distribution System Field Sampling Plan					SOIL SAMPLER Z. Maliga		DATE AND TIME SAMPLED 9/26/07 11:05	
SAMPLE LOCATION DESCRIPTION Building 101 northern entrance						Project Number: A70004.16					WEATHER/TEMP sunny/ 75°F		INITIAL SURFACE COMPLETION 5 inches of concrete	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Type II/V portland cement					SAMPLING EQUIPMENT Hand Auger		DRILLING METHOD Hand Auger	
Depth Interval	Stratigraphic Name (USCS)	OYM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a) %	Sand (a) %	Silt (a) %	Clay (a) %	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)	
											d m m-w w	st mo wk no		
0-2.5	clay with gravel	0.0	x			5 YR 2.5/1	25	10	10	55	m	no	red, stiff	
2.5-4.5	clay with sand	0.0			x	5 YR 4/4	10	15	30	45	m-w	no	mottled throughout, soft	

Soil Sample ID	Collection Time	Soil Sampler
BR6-3SB03(2.5)	11:09	Hand Auger
BR6-3SB03(3.0)	11:19 (hold)	Hand Auger

Notes:

Ten gallons of cement poured into hole & taken up into void space. Then, hole was sealed using hydrated bantonite chips & topped off with cement.

Notes:

(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were submitted for grain size distribution or other geotechnical analysis.

SAMPLE LOCATION BR6-3SB04						Project: Fuel Distribution System Field Sampling Plan						SOIL SAMPLER Z. Maliga	DATE AND TIME SAMPLED 9/26/07 15:37
SAMPLE LOCATION DESCRIPTION 15 ft west of Building 101.						Project Number: A70004.16						WEATHER/TEMP sunny/ 85°F	INITIAL SURFACE COMPLETION lawn
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Type II/V portland cement			SAMPLING EQUIPMENT Rhino Rig			DRILLING METHOD Direct Push	
Depth Interval	Stratigraphic Name (USCS)	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a) %	Sand (a) %	Silt (a) %	Clay (a) %	Moisture d m m-w w	Odor st mo wk no	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)
0-8.0	excavation bad fill	0.0	x			10 YR 3/4	10-15	20-30	20-40	20-40	m		pieces of cement, woven plastic fabric, cement fragments
8.0-9.5	clay with sand	40.0	x			5 YR 4/2	-	15	35	50	m		gleyed; Colma Formation; petroleum hydrocarbon odor
9.5-9.8	gravel	20.0	x			2.5 YR 4/8	100	-	-	-	m		4 inches of brick fragments
9.8-12.5	silty sand	45.0	x			5 YR 4/2	-	70	30	-	m		2 inches of brick fragments at 12.5 ft bgs
12.5	silty sand	0.0			x	10 YR 4/4	-	70	30	-	m	no	wet at ~19 ft bgs

Soil Sample ID	Collection Time	Soil Sampler
BR6-3SB04(12.0)	16:04	Butyrate
BR6-3SB04(17.0)	16:10	Butyrate
BR6-3SB04(18.5)	16:23	Butyrate

Notes:

Hand augered to 4 ft bgs
Bag sample at 8 ft bgs (OVM = 45 ppm)

4-8 ft bgs (2' 3" recovery)
8-12 ft bgs (3' 4" recovery)
12-16 ft bgs (3' 3" recovery)

Notes:

(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were submitted for grain size distribution or other geotechnical analysis.

SAMPLE LOCATION BR7-1SB01						Project: Fuel Distribution System Field Sampling Plan						SOIL SAMPLER Z. Maliga		DATE AND TIME SAMPLED 9/28/07 8:35	
SAMPLE LOCATION DESCRIPTION Lincoln Blvd., at northwest corner of Building 105						Project Number: A70004.16						WEATHER/TEMP sunny/ 85°F		INITIAL SURFACE COMPLETION 6-7 inches of asphalt	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Soil Cuttings				SAMPLING EQUIPMENT Hand Auger			DRILLING METHOD Hand Auger		
Depth Interval	Stratigraphic Name (USCS)	OYM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a) %	Sand (a) %	Silt (a) %	Clay (a) %	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)		
											d m m-w w	st mo wk no			
0-1.0	gray baserock	0.0	x			10 YR 4/1	60	25	10	5	m	no			
1.0-1.5	sandy silt	0.0	x			10 YR 4/2	-	30	40	30	m	no			
1.5-2.0	sand	0.0	x			10 YR 3/3	-	90	10	-	m	no			

Soil Sample ID	Collection Time	Soil Sampler
BR7-1SB01(1.5)	8:55	Hand Auger

Notes:

Notes:

(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were submitted for grain size distribution or other geotechnical analysis.

SAMPLE LOCATION BR7-2SB02						Project: Fuel Distribution System Field Sampling Plan						SOIL SAMPLER Z. Maliga		DATE AND TIME SAMPLED 9/28/07 10:50	
SAMPLE LOCATION DESCRIPTION At corner of Lincoln Blvd. and Keyes Street.						Project Number: A70004.16						WEATHER/TEMP overcast/ 60°F		INITIAL SURFACE COMPLETION 6 inches of asphalt	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Soil Cuttings				SAMPLING EQUIPMENT Hand Auger		DRILLING METHOD Hand Auger			
Depth Interval	Stratigraphic Name (USCS)	OYM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a) %	Sand (a) %	Silt (a) %	Clay (a) %	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)		
											d m m-w w	st mo wk no			
0-1.0	gravel with silt & sand	0.0	x			7.5 YR 4/3	40	30	15	15	m	no			
1.0-2.5	clay	0.0	x			7.5 YR 2/2	-	10	40	50	m	no	roots		

Soil Sample ID	Collection Time	Soil Sampler
BR7-2SB02(1.5)	10:59	Hand Auger
DUP-2-092807	10:59	Hand Auger

Notes:

Notes:

(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were submitted for grain size distribution or other geotechnical analysis.

SAMPLE LOCATION BR7-1SB03						Project: Fuel Distribution System Field Sampling Plan						SOIL SAMPLER Z. Maliga		DATE AND TIME SAMPLED 9/27/07 16:00	
SAMPLE LOCATION DESCRIPTION At corner of Lincoln Avenue and Montgomery Street.						Project Number: A70004.16						WEATHER/TEMP Fog/ 70°F		INITIAL SURFACE COMPLETION 6 inches of asphalt	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Type II/V portland cement				SAMPLING EQUIPMENT Hand Auger		DRILLING METHOD Hand Auger			
Depth Interval	Stratigraphic Name (USCS)	OYM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a)	Sand (a)	Silt (a)	Clay (a)	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)		
							%	%	%	%	d m m-w w	st mo wk no			
0-1.0	gravel	0.0	x			7.5 YR 4/1	70	10	10	10	m		base rock		
1.0-1.5	brick	0.0	x										layer brick		
1.5-2.0	LTTD	0.0	x	x		10 YR 2/1	tr	50	40	10	m	no	some road base at edge of sample from slough		

Soil Sample ID	Collection Time	Soil Sampler
BR7-1SB03(1.0)	16:06	Hand Auger

Notes:

Large brick at 1 ft bgs. Brick was broken through using a hand auger. Soil sample collected is half road base and half LTTD.

Notes:

(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were submitted for grain size distribution or other geotechnical analysis.

SAMPLE LOCATION BR7-1SB04						Project: Fuel Distribution System Field Sampling Plan						SOIL SAMPLER Z. Maliga		DATE AND TIME SAMPLED 9/27/07 14:30	
SAMPLE LOCATION DESCRIPTION on Lincoln Blvd., near bank.						Project Number: A70004.16						WEATHER/TEMP sunny/ 70°F		INITIAL SURFACE COMPLETION 6 inches of asphalt	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Type II/V portland cement				SAMPLING EQUIPMENT Hand Auger		DRILLING METHOD Hand Auger			
Depth Interval	Stratigraphic Name (USCS)	OYM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a)	Sand (a)	Silt (a)	Clay (a)	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)		
							%	%	%	%	d m m-w w	st mo wk no			
0-1.0	gravel with silt and sand	0.0	x			7.5 YR 5/1	40	30	20	10	m	no			
1.0-1.5	silty sand			x		10 YR 2/1	tr	50	40	10	m	no			

Soil Sample ID	Collection Time	Soil Sampler
BR7-1SB04(1.0)	14:36	Hand Auger

Notes:

Notes:

(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were submitted for grain size distribution or other geotechnical analysis.

SAMPLE LOCATION BR7-1SB05						Project: Fuel Distribution System Field Sampling Plan						SOIL SAMPLER Z. Maliga		DATE AND TIME SAMPLED 9/27/07 14:30	
SAMPLE LOCATION DESCRIPTION On Lincoln Blvd., next to mailbox						Project Number: A70004.16						WEATHER/TEMP foggy/ 70°F		INITIAL SURFACE COMPLETION 6 inches of asphalt	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Type II/V portland cement				SAMPLING EQUIPMENT Hand Auger		DRILLING METHOD Hand Auger			
Depth Interval	Stratigraphic Name (USCS)	OYM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a) %	Sand (a) %	Silt (a) %	Clay (a) %	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)		
											d m m-w w	st mo wk no			
0-1.0	gravel with silt and sand	0.0	x			7.5 YR 4/1	55	15	15	15	m	no			
1.0-1.5	silty sand	0.0	x			7.5 YR 5/1	40	30	20	10	m	no			
1.5-2.0	LTTD	0.0	x	x		10 YR 2/1	tr	50	40	10	m	no			

Soil Sample ID	Collection Time	Soil Sampler
BR7-1SB05(1.5)	15:15	Hand Auger
DUP-2-092707	15:15	Hand Auger

Notes:

Notes:

(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were submitted for grain size distribution or other geotechnical analysis.

SAMPLE LOCATION BR7-1SB06						Project: Fuel Distribution System Field Sampling Plan Project Number: A70004.16					SOIL SAMPLER Z. Maliga		DATE AND TIME SAMPLED 9/28/07 9:32	
SAMPLE LOCATION DESCRIPTION On Lincoln Blvd., next to bank.											WEATHER/TEMP overcast/ 65°F		INITIAL SURFACE COMPLETION 6.5 inches of concrete	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Soil Cuttings					SAMPLING EQUIPMENT Hand Auger		DRILLING METHOD Hand Auger	
Depth Interval	Stratigraphic Name (USCS)	OYM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a) %	Sand (a) %	Silt (a) %	Clay (a) %	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)	
											d m m-w w	st mo wk no		
0-1.0	gray baserock	0.0	x			N5/	45	30	15	10	m	no		
1.0-2.0	sandy silt	0.0	x	x		10 YR 2/1	-	30	40	30	m	wk		

Soil Sample ID	Collection Time	Soil Sampler
BR7-1SB06(1.5)	9:40	Hand Auger

Notes:

Notes:

(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were submitted for grain size distribution or other geotechnical analysis.

SAMPLE LOCATION BR7-1SB07						Project: Fuel Distribution System Field Sampling Plan						SOIL SAMPLER Z. Maliga		DATE AND TIME SAMPLED 9/28/07 9:15	
SAMPLE LOCATION DESCRIPTION Location next to FedEx box, at corner of Lincoln Blvd. and						Project Number: A70004.16						WEATHER/TEMP overcast/ 65°F		INITIAL SURFACE COMPLETION 6.25 inches of asphalt	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Soil Cuttings				SAMPLING EQUIPMENT Hand Auger		DRILLING METHOD Hand Auger			
Depth Interval	Stratigraphic Name (USCS)	OYM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a) %	Sand (a) %	Silt (a) %	Clay (a) %	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)		
											d m m-w w	st mo wk no			
0-1.0	gray baserock	0.0	x			10 YR 4/1	50	30	10	10	m-w	wk	slight petroleum hydrocarbon odor		

Soil Sample ID	Collection Time	Soil Sampler
No Sample Collected		

Notes:

cement at 1 ft bgs blocks access to borehole.
Hole is recovered. Second core made adjacent to first & also had a slab of cement beneath it.
Location abandoned.

Notes:

(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were submitted for grain size distribution or other geotechnical analysis.

SAMPLE LOCATION BR7-2SB01						Project: Fuel Distribution System Field Sampling Plan						SOIL SAMPLER S. Gillispie		DATE AND TIME SAMPLED 10/9/07 10:45	
SAMPLE LOCATION DESCRIPTION Lawn, near corner of Lincoln and Graham						Project Number: A70004.16						WEATHER/TEMP cloudy, cool		INITIAL SURFACE COMPLETION 5 inches of asphalt	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Soil Cuttings				SAMPLING EQUIPMENT Hand Auger		DRILLING METHOD Hand Auger			
Depth Interval	Stratigraphic Name (USCS)	OYM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a) %	Sand (a) %	Silt (a) %	Clay (a) %	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)		
											d m m-w w	st mo wk no			
0-2.0	silt with sand	0.0	x			10 YR 2/1	-	25	60	15	m	no	debris; dark brown		

Soil Sample ID	Collection Time	Soil Sampler
BR7-2SB01(1.5)	10:55	Hand Auger

Notes:

Notes:

(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were submitted for grain size distribution or other geotechnical analysis.

SAMPLE LOCATION BR7-2SB01						Project: Fuel Distribution System Field Sampling Plan						SOIL SAMPLER Z. Maliga		DATE AND TIME SAMPLED 9/28/07 10:25	
SAMPLE LOCATION DESCRIPTION On street, near corner of Graham and Lincoln						Project Number: A70004.16						WEATHER/TEMP overcast/ 65°F		INITIAL SURFACE COMPLETION 6.25 inches of asphalt	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Soil cuttings				SAMPLING EQUIPMENT Hand Auger			DRILLING METHOD Hand Auger		
Depth Interval	Stratigraphic Name (USCS)	OYM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a) %	Sand (a) %	Silt (a) %	Clay (a) %	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)		
											d m m-w w	st mo wk no			
0-0.75	gravel with sand	0.0	x			N5/	60	30	10	-	m	no			
0.75-2.5	silt with sand	0.0	x	x?		7.5 YR 2.5/2	-	20	50	30	m	no			

Soil Sample ID	Collection Time	Soil Sampler
BR7-2SB01(1.5)	10:40	Hand Auger

Notes:

Notes:

(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were submitted for grain size distribution or other geotechnical analysis.

SAMPLE LOCATION BR7-2SB02						Project: Fuel Distribution System Field Sampling Plan					SOIL SAMPLER Z. Maliga		DATE AND TIME SAMPLED 9/28/07 10:50	
SAMPLE LOCATION DESCRIPTION At corner of Lincoln Blvd. and Keyes Street.						Project Number: A70004.16					WEATHER/TEMP overcast/ 60°F		INITIAL SURFACE COMPLETION 6 inches of asphalt	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Soil Cuttings					SAMPLING EQUIPMENT Hand Auger		DRILLING METHOD Hand Auger	
Depth Interval	Stratigraphic Name (USCS)	OVM	Overburden?	LTD?	Native?	Munsell Color Code	Gravel (a)	Sand (a)	Silt (a)	Clay (a)	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)	
							%	%	%	%	d m m-w w	st mo wk no		
0-1.0	gravel w/ silt & sand	0.0	x			7.5 YR 4/3	40	30	15	15	m	no		
1.0-2.5	clay	0.0	x			7.5 YR 2/2	-	10	40	50	m	no	roots	

Soil Sample ID	Collection Time	Soil Sampler
BR7-2SB02(1.5)	10:59	Hand Auger
DUP-2-092807	10:59	Hand Auger

Notes:

Notes:
(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples w

SAMPLE LOCATION BR9-1SB01						Project: Fuel Distribution System Field Sampling Plan					SOIL SAMPLER S. Gillispie		DATE AND TIME SAMPLED 9/26/07 11:00	
SAMPLE LOCATION DESCRIPTION On Long Ave., near Building 988.						Project Number: A70004.16					WEATHER/TEMP sunny, cool		INITIAL SURFACE COMPLETION 6 inches of asphalt	
DECONTAMINATION METHOD Triple Rinse		BOREHOLE DIAMETER (inches) 2				BACKFILL FOR BOREHOLES Type II/V portland cement				SAMPLING EQUIPMENT Hand Auger		DRILLING METHOD Hand Auger		
Depth Interval	Stratigraphic Name (USCS)	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a) %	Sand (a) %	Silt (a) %	Clay (a) %	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)	
											d m m-w w	st mo wk no		
0-3.0	silty sand	0.0			x	10 YR 3/4	10	50	40	-	d	no	fine sand; debris; brick fragments	
3.0-5.0	poorly graded sand with silt	0.0			x	5 YR 5/2	5	80	15	-	m	no	fine sand; greenish-gray	
5.0-6.0	poorly graded sand	0.0			x	10 YR 5/6	5	90	5	-	m	no		

Soil Sample ID	Collection Time	Soil Sampler
BR9-1SB01(5.5)	11:40	Hand Auger

Notes:

Notes:

(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were submitted for grain size distribution or other geotechnical analysis.

SAMPLE LOCATION BR9-1SB02						Project: Fuel Distribution System Field Sampling Plan					SOIL SAMPLER S. Gillispie		DATE AND TIME SAMPLED 9/26/07 11:00	
SAMPLE LOCATION DESCRIPTION Long Ave., near Building 988						Project Number: A70004.16					WEATHER/TEMP sunny, warm		INITIAL SURFACE COMPLETION 6 inches of cement	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Type II/V portland cement					SAMPLING EQUIPMENT Hand Auger		DRILLING METHOD Hand Auger	
Depth Interval	Stratigraphic Name (USCS)	OYM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a) %	Sand (a) %	Silt (a) %	Clay (a) %	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)	
											d m m-w w	st mo wk no		
0-2.0	silty sand with gravel	0.0			x	10 YR 3/3	20	50	30	-	d	no		
2.0-5.5	silty sand	0.0			x	5 YR 5/2	5	80	15	-	m	no	greenish-gray; fine sand; organics	

Soil Sample ID	Collection Time	Soil Sampler
BR9-1SB02(5.5)	12:30	Hand Auger

Notes:

Notes:

(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were submitted for grain size distribution or other geotechnical analysis.

SAMPLE LOCATION BR9-1SB03						Project: Fuel Distribution System Field Sampling Plan					SOIL SAMPLER S. Gillispie		DATE AND TIME SAMPLED 9/26/07 11:00	
SAMPLE LOCATION DESCRIPTION Long Ave., near Building 988						Project Number: A70004.16					WEATHER/TEMP sunny, warm		INITIAL SURFACE COMPLETION 6 inches of cement	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Type II/V portland cement					SAMPLING EQUIPMENT Hand Auger		DRILLING METHOD Hand Auger	
Depth Interval	Stratigraphic Name (USCS)	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a)	Sand (a)	Silt (a)	Clay (a)	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)	
							%	%	%	%	d m m-w w	st mo wk no		
0-2.0	silty sand	0.0			x	10 YR 3/4	5	75	20	-	m	no		
2.0-3.5	silty sand	0.0			x	5 YR 5/2	5	80	15	-	m	no	organics	
3.5-5.0	silty sand	0.0			x	10 YR 3/2	-	80	10	10	m	no	organics	

Soil Sample ID	Collection Time	Soil Sampler
BR9-1SB03(4.5)	13:00	Hand Auger

Notes:

Notes:

(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were submitted for grain size distribution or other geotechnical analysis.

SAMPLE LOCATION BR10-1SB01						Project: Fuel Distribution System Field Sampling Plan					SOIL SAMPLER S. Gillispie		DATE AND TIME SAMPLED 9/27/07 13:45	
SAMPLE LOCATION DESCRIPTION On Halleck St., near Building 220.						Project Number: A70004.16					WEATHER/TEMP sunny, cool		INITIAL SURFACE COMPLETION 6 inches of concrete	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Type II/V portland cement					SAMPLING EQUIPMENT Hand Auger		DRILLING METHOD Hand Auger	
Depth Interval	Stratigraphic Name (USCS)	OYM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a)	Sand (a)	Silt (a)	Clay (a)	Moisture d m m-w w	Odor st mo wk no	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)	
							%	%	%	%				
0-1.0	poorly graded sand with gravel		x			10 YR 2/1	25	60	15	-	m	no	dark brown/ black	
1.0-3.5	LTTD			x		10 YR 2/1	-	90	10	-	m	no	well sorted, fine sand	
3.5-4.0	poorly graded gravel		x			10 YR 5/1	90	10	-	-	m	no	well sorted; fine gravel; fine sand	

Soil Sample ID	Collection Time	Soil Sampler
BR10-1SB01(2.0)	14:00	Hand Auger
3 En Cores®	14:00	En Cores®

Notes:

Soil sample analyzed for BTEX.

Notes:

(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were submitted for grain size distribution or other geotechnical analysis.

SAMPLE LOCATION BR10-1SB02						Project: Fuel Distribution System Field Sampling Plan					SOIL SAMPLER S. Gillispie		DATE AND TIME SAMPLED 9/27/07 13:45	
SAMPLE LOCATION DESCRIPTION Halleck St., near Building 220						Project Number: A70004.16					WEATHER/TEMP sunny, cool		INITIAL SURFACE COMPLETION 6 inches of concrete	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Type II/V portland cement					SAMPLING EQUIPMENT Hand Auger		DRILLING METHOD Hand Auger	
Depth Interval	Stratigraphic Name (USCS)	OYM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a)	Sand (a)	Silt (a)	Clay (a)	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)	
							%	%	%	%	d m m-w w	st mo wk no		
0-3.5	well-graded sand	0.0	x			10 YR 5/1	10	80	10	-	w	no	fine sand; medium to coarse gravel; saturated	

Soil Sample ID	Collection Time	Soil Sampler
BR10-1SB02(3.0)	15:30	Hand Auger

Notes:
 Standing water in borehole.

Notes:

(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were submitted for grain size distribution or other geotechnical analysis.

SAMPLE LOCATION BR10-1SB03						Project: Fuel Distribution System Field Sampling Plan					SOIL SAMPLER S. Gillispie		DATE AND TIME SAMPLED 9/26/07 13:45	
SAMPLE LOCATION DESCRIPTION Halleck St., near Building 220						Project Number: A70004.16					WEATHER/TEMP sunny, hot		INITIAL SURFACE COMPLETION 6 inches of concrete	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Type II/V portland cement					SAMPLING EQUIPMENT Hand Auger		DRILLING METHOD Hand Auger	
Depth Interval	Stratigraphic Name (USCS)	OYM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a)	Sand (a)	Silt (a)	Clay (a)	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)	
							%	%	%	%	d m m-w w	st mo wk no		
0-3.0	poorly graded sand with silt & gravel	0.0	x		x	10 YR 2/1	25	60	15	-	m-w	no	well-graded sand, medium to coarse gravel	
3.0-4.0	poorly graded sand	0.0			x	10 YR 5/6	-	90	10	-	m-w	no	well-sorted sand	

Soil Sample ID	Collection Time	Soil Sampler
BR10-1SB03(3.0)	15:30	Hand Auger

Notes:

Notes:

(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were submitted for grain size distribution or other geotechnical analysis.

SAMPLE LOCATION BR10-1SB05						Project: Fuel Distribution System Field Sampling Plan						SOIL SAMPLER S. Gillispie		DATE AND TIME SAMPLED 10/01/07 14:00	
SAMPLE LOCATION DESCRIPTION At corner of Halleck St. and Lincoln Blvd.						Project Number: A70004.16						WEATHER/TEMP sunny, warm		INITIAL SURFACE COMPLETION 4 inches of asphalt	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Soil Cuttings				SAMPLING EQUIPMENT Hand Auger			DRILLING METHOD Hand Auger		
Depth Interval	Stratigraphic Name (USCS)	OYM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a) %	Sand (a) %	Silt (a) %	Clay (a) %	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)		
											d m m-w w	st mo wk no			
0-1.0	silty sand	0.0	x			10 YR 4/1	10	60	30	-	w	no	fine sand, road base		
1.0-2.5	sand with silt	0.0	x	x		10 YR 2/1	5	75	25	-	w	no	well sorted sand; debris & trace gravel		

Soil Sample ID	Collection Time	Soil Sampler
BR10-1SB05(2.0)	14:15	Hand Auger/ En Cores®

Notes:
 Collected 3 En Cores®

Notes:

(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were submitted for grain size distribution or other geotechnical analysis.

SAMPLE LOCATION BR10-1SB06						Project: Fuel Distribution System Field Sampling Plan						SOIL SAMPLER S. Gillispie		DATE AND TIME SAMPLED 10/01/07 13:00	
SAMPLE LOCATION DESCRIPTION At corner of Halleck St. and Lincoln Blvd.						Project Number: A70004.16						WEATHER/TEMP sunny, warm		INITIAL SURFACE COMPLETION 6 inches of asphalt	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Soil Cuttings				SAMPLING EQUIPMENT Hand Auger		DRILLING METHOD Hand Auger			
Depth Interval	Stratigraphic Name (USCS)	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a) %	Sand (a) %	Silt (a) %	Clay (a) %	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)		
											d m m-w w	st mo wk no			
0-1.0	silty sand	0.0	x			10 YR 4/1	10	60	30	-			road base; fine sand; fine gravel		
1.0-2.5	sand with silt	0.0	x	x		10 YR 2/1	5	70	25	-					

Soil Sample ID	Collection Time	Soil Sampler
BR10-1SB06(2.0)	13:10	Hand Auger / En Cores®
DUP-3-100107	13:10	Hand Auger / En Cores®

Notes: En Cores® collected for sample and duplicate.
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Notes:

(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were submitted for grain size distribution or other geotechnical analysis.

SAMPLE LOCATION BR10-1SB07						Project: Fuel Distribution System Field Sampling Plan						SOIL SAMPLER S. Gillispie		DATE AND TIME SAMPLED 10/01/07 12:15	
SAMPLE LOCATION DESCRIPTION At corner of Halleck St. and Lincoln Blvd.						Project Number: A70004.16						WEATHER/TEMP sunny, cool		INITIAL SURFACE COMPLETION 6 inches of concrete	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Soil Cuttings				SAMPLING EQUIPMENT Hand Auger		DRILLING METHOD Hand Auger			
Depth Interval	Stratigraphic Name (USCS)	OYM	Overburden?	LTD?	Native?	Munsell Color Code	Gravel (a) %	Sand (a) %	Silt (a) %	Clay (a) %	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)		
											d m m-w w	st mo wk no			
0-1.0	silty sand	0.0	x			10 YR 3/1	10	60	30	-	m	no			
1.0-2.5	sand with silt	0.0		x		10 YR 2/1	5	70	25	-	w	no	trace debris		

Soil Sample ID	Collection Time	Soil Sampler
BR10-1SB07(2.0)	12:30	Hand Auger/ En Cores®

Notes: Three En Cores® collected for BTEX analysis.

Notes:

(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were submitted for grain size distribution or other geotechnical analysis.

SAMPLE LOCATION BR10-2SB01						Project: Fuel Distribution System Field Sampling Plan						SOIL SAMPLER S. Gillispie		DATE AND TIME SAMPLED 10/9/07 17:00	
SAMPLE LOCATION DESCRIPTION At corner of Halleck St. and Lincoln Blvd.						Project Number: A70004.16						WEATHER/TEMP overcast		INITIAL SURFACE COMPLETION 6 inches of asphalt	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Soil Cuttings					SAMPLING EQUIPMENT Hand Auger		DRILLING METHOD Hand Auger		
Depth Interval	Stratigraphic Name (USCS)	OYM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a) %	Sand (a) %	Silt (a) %	Clay (a) %	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)		
											d m m-w w	st mo wk no			
0-3.0	sand with gravel	0.0	x			10 YR 3/2	25	60	10	5	m	no			
3.0-3.5	sand with gravel	0.0			x	10 YR 3/2	10	65	10	15	m	no			

Soil Sample ID	Collection Time	Soil Sampler
BR10-2SB01(3.0)	18:00	Hand Auger

Notes:

Notes:

(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were submitted for grain size distribution or other geotechnical analysis.

SAMPLE LOCATION BR10-3SB01						Project: Fuel Distribution System Field Sampling Plan					SOIL SAMPLER S. Gillispie		DATE AND TIME SAMPLED 10/01/07 14:00	
SAMPLE LOCATION DESCRIPTION Along Girard Rd., near Building 1028.						Project Number: A70004.16					WEATHER/TEMP sunny, cool		INITIAL SURFACE COMPLETION 6 inches of cement	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Soil Cuttings			SAMPLING EQUIPMENT Hand Auger			DRILLING METHOD Hand Auger		
Depth Interval	Stratigraphic Name (USCS)	OVM	Overburden?	LTID?	Native?	Munsell Color Code	Gravel (a) %	Sand (a) %	Silt (a) %	Clay (a) %	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)	
											d m m-w w	st mo wk no		
0-2.0	sand w/ silt	0.0	x			10 YR 3/4	5	70	25	-	m	no	trace debris	
2.0-3.0	poorly graded gravel w/ sand	0.0	x				70	30	-	-	m	no	well sorted, medium sized gravel	
3.0-5.0	poorly graded sand	0.0			x		-	95	<5	<5	m	no	Colma Formation; native; well sorted, fine sand	

Soil Sample ID	Collection Time	Soil Sampler
No Sample		

Notes:

No LTID soil observed in borehole. Therefore, no sample collected.

Notes:

(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples w

SAMPLE LOCATION BR10-3SB02						Project: Fuel Distribution System Field Sampling Plan					SOIL SAMPLER S. Gillispie		DATE AND TIME SAMPLED 9/26/07 14:30	
SAMPLE LOCATION DESCRIPTION Girard Rd., near Building 1028.						Project Number: A70004.16					WEATHER/TEMP sunny, hot		INITIAL SURFACE COMPLETION 6 inches of cement	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Type II/V portland cement					SAMPLING EQUIPMENT Hand Auger		DRILLING METHOD Hand Auger	
Depth Interval	Stratigraphic Name (USCS)	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a)	Sand (a)	Silt (a)	Clay (a)	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)	
							%	%	%	%	d m m-w w	st mo wk no		
0-2.0	silty sand with gravel	0.0	x			10 YR 3/2	30	50	20	-	d/m	no	medium sized gravel	
2.0-2.5	poorly graded sand	0.0	x			10 YR 5/4	5	90	5	-	d/m	no		

Soil Sample ID	Collection Time	Soil Sampler
BR10-3SB02(1.5)	14:40	Hand Auger

Notes:

Notes:

(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were submitted for grain size distribution or other geotechnical analysis.

SAMPLE LOCATION BR12-1SB01						Project: Fuel Distribution System Field Sampling Plan Project Number: A70004.16					SOIL SAMPLER S. Gillispie		DATE AND TIME SAMPLED 9/24/07 9:15	
SAMPLE LOCATION DESCRIPTION In front of Building 59.											WEATHER/TEMP sunny, cool		INITIAL SURFACE COMPLETION 6 inches of concrete	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Type II/V portland cement				SAMPLING EQUIPMENT Hand Auger		DRILLING METHOD Hand Auger		
Depth Interval	Stratigraphic Name (USCS)	OYM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a) %	Sand (a) %	Silt (a) %	Clay (a) %	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)	
											d m m-w w	st mo wk no		
0-2.5	silty with sand	0.0			x	10 YR 4/3	-	20	80	-	d-m	no	organics; fine sand	

Soil Sample ID	Collection Time	Soil Sampler
BR12-1SB01(2.0)	9:30	Hand Auger

Notes:

Notes:

(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were submitted for grain size distribution or other geotechnical analysis.

SAMPLE LOCATION BR12-1SB03						Project: Fuel Distribution System Field Sampling Plan						SOIL SAMPLER S. Gillispie		DATE AND TIME SAMPLED 9/24/07 9:15	
SAMPLE LOCATION DESCRIPTION In front of Building 59.						Project Number: A70004.16						WEATHER/TEMP sunny, cool		INITIAL SURFACE COMPLETION 6 inches of soil	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Type II/V portland cement					SAMPLING EQUIPMENT Hand Auger		DRILLING METHOD Hand Auger		
Depth Interval	Stratigraphic Name (USCS)	OYM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a) %	Sand (a) %	Silt (a) %	Clay (a) %	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)		
											d m m-w w	st mo wk no			
0-0.5	silt top soil/silt	2.0			x	10 YR 4/3	-	10	90	-	d-m	no	dark brown topsoil with roots		
0.5-4.0	silt fine sand	0.0			x	10 YR 4/3	-	10	90	-	dm	no	as above without roots		
4.0-6.0	silt	0.0			x	10 YR 4/3	-	-	90	10	d-m	no	as above, more cohesion		

Soil Sample ID	Collection Time	Soil Sampler
BR12-1SB03(5.5)	9:25	Hand Auger

Notes:

Notes:

(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were submitted for grain size distribution or other geotechnical analysis.

SAMPLE LOCATION BR13-1SB01						Project: Fuel Distribution System Field Sampling Plan						SOIL SAMPLER Z. Maliga		DATE AND TIME SAMPLED 9/28/07 14:40	
SAMPLE LOCATION DESCRIPTION Funston Ave. at Presidio Blvd.						Project Number: A70004.16						WEATHER/TEMP overcast/ 70°F		INITIAL SURFACE COMPLETION 5 inches of asphalt	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Soil Cuttings					SAMPLING EQUIPMENT Hand Auger		DRILLING METHOD Hand Auger		
Depth Interval	Stratigraphic Name (USCS)	OYM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a) %	Sand (a) %	Silt (a) %	Clay (a) %	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)		
											d m m-w w	st mo wk no			
0	baserock	0.0	x			2.5 YR 4/2	45	20	20	15	m	no	brick fragments		

Soil Sample ID	Collection Time	Soil Sampler
BR13-1SB01(2.0)	14:50	Hand Auger

Notes:

Notes:

(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were submitted for grain size distribution or other geotechnical analysis.

SAMPLE LOCATION BR13-1SB02						Project: Fuel Distribution System Field Sampling Plan						SOIL SAMPLER S. Gillispie		DATE AND TIME SAMPLED 9/26/07 10:15	
SAMPLE LOCATION DESCRIPTION Barnard Ave., near Building 57.						Project Number: A70004.16						WEATHER/TEMP sunny, cool		INITIAL SURFACE COMPLETION 6 inches of cement	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Type II/V portland cement					SAMPLING EQUIPMENT Hand Auger		DRILLING METHOD Hand Auger		
Depth Interval	Stratigraphic Name (USCS)	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a)	Sand (a)	Silt (a)	Clay (a)	Moisture d m m-w w	Odor st mo wk no	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)		
							%	%	%	%					
0-3.0	sandy silt	0.0	x			10 YR 4/4	-	40	60	-	d	no	organics		

Soil Sample ID	Collection Time	Soil Sampler
BR13-1SB02(2.0)	10:30	Hand Auger

Notes:

Notes:

(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were submitted for grain size distribution or other geotechnical analysis.

SAMPLE LOCATION BR13-1SB03						Project: Fuel Distribution System Field Sampling Plan						SOIL SAMPLER S. Gillispie		DATE AND TIME SAMPLED 10/8/07 15:10	
SAMPLE LOCATION DESCRIPTION Barnard Ave., near Building 57.						Project Number: A70004.16						WEATHER/TEMP sunny, cool		INITIAL SURFACE COMPLETION Soil	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Soil Cuttings					SAMPLING EQUIPMENT Hand Auger		DRILLING METHOD Hand Auger		
Depth Interval	Stratigraphic Name (USCS)	OYM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a) %	Sand (a) %	Silt (a) %	Clay (a) %	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)		
											d m m-w w	st mo wk no			
0-2.0	silt w/sand	0.0	x			10 YR 1/2	-	20	80	-	d	no	top soil; fine sand		
2.0-5.5	silt w/sand				x	10 YR 5/4	-	20	70	10	d	no	fine sand		

Soil Sample ID	Collection Time	Soil Sampler
BR13-1SB03(5.0)	15:20	Hand Auger

Notes:

Notes:

(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were submitted for grain size distribution or other geotechnical analysis.

SAMPLE LOCATION MT-2SB01						Project: Fuel Distribution System Field Sampling Plan					SOIL SAMPLER Z. Maliga		DATE AND TIME SAMPLED 9/28/07 10:58	
SAMPLE LOCATION DESCRIPTION In lawn next to Building 951.						Project Number: A70004.16					WEATHER/TEMP foggy		INITIAL SURFACE COMPLETION soil	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Type II/V portland cement					SAMPLING EQUIPMENT Hand Auger		DRILLING METHOD NA	
Depth Interval	Stratigraphic Name	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a)	Sand (a)	Silt (a)	Clay (a)	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)	
							%	%	%	%	d m m-w w	st mo wk no		
0-2.0	silty sand	0.0	x			10 YR 2/2	10	40	30	20	m	no		
2.0-3.0	clay	0.0			x	10 YR 4/2		10	20	70	m	no	trace gravel	

Soil Sample ID	Collection Time	Soil Sampler
MT-2SB01(2.0)	11:06	Hand Auger

Notes:

Borehole location relocated due to proximity to telephone line.

Notes:
(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were collected for geotechnical analysis.

SAMPLE LOCATION MT-2SB02						Project: Fuel Distribution System Field Sampling Plan					SOIL SAMPLER Z. Maliga		DATE AND TIME SAMPLED 9/27/07 9:00	
SAMPLE LOCATION DESCRIPTION Along Hoffman St., next to Building 951.						Project Number: A70004.16					WEATHER/TEMP foggy/ 70°F		INITIAL SURFACE COMPLETION 1.75 inches of asphalt	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Type II/V portland cement					SAMPLING EQUIPMENT Hand Auger		DRILLING METHOD Hand Auger	
Depth Interval	Stratigraphic Name	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a)	Sand (a)	Silt (a)	Clay (a)	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)	
							%	%	%	%	d m m-w w	st mo wk no		
0-2.0	silty sand with gravel	0.0	x			10 YR 4/4	20	35	30	15	m	no		
2.0-2.25	serpentinite	0.0			x	5 YR 5/1	-	-	-	-	m	no	bedrock	

Soil Sample ID	Collection Time	Soil Sampler
MT-2SB02(2.0)	9:24	Hand Auger

Notes:

Refusal at 2 1/4 ft bgs.

Notes:

(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples w

SAMPLE LOCATION MT-2SB03						Project: Fuel Distribution System Field Sampling Plan Project Number: A70004.16						SOIL SAMPLER S. Gillispie		DATE AND TIME SAMPLED 10/15/07 13:40	
SAMPLE LOCATION DESCRIPTION Building 952 area												WEATHER/TEMP rain		INITIAL SURFACE COMPLETION 3 inches of asphalt	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Soil Cuttings					SAMPLING EQUIPMENT Hand Auger		DRILLING METHOD Hand Auger		
Depth Interval	Stratigraphic Name	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a) %	Sand (a) %	Silt (a) %	Clay (a) %	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)		
											d m m-w w	st mo wk no			
0-1.5	sandy silt	NA			x	10 YR 2/2	-	30	50	20	m-w	mo-wk	secondary color (5G 5/1)sandy silt with clay; moderate odor decreasing with depth, moist to wet organics.		
1.5-2.5	weathered serpentinite	NA			x	5G 5/1	20	70	10	-	m-w	no	bedrock, no odor		

Soil Sample ID	Collection Time	Soil Sampler
MT-2SB03(0.5)	13:55	Hand Auger
MT-2SB03(1.0)	14:00	Hand Auger
MT-2SB03(1.5) (hold)	14:05	Hand Auger
MT-2SB03(2.0) (hold)	14:10	Hand Auger

Notes:

Encountered weathered serpentinite with moderate petroleum odor from 1.0-2.0 ft bgs. Refusal at 2.5 ft bgs.

Notes:
(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples w

SAMPLE LOCATION MT-2SB04						Project: Fuel Distribution System Field Sampling Plan						SOIL SAMPLER Z. Maliga		DATE AND TIME SAMPLED 9/27/07 9:41	
SAMPLE LOCATION DESCRIPTION Along Hoffman St.						Project Number: A70004.16						WEATHER/TEMP foggy/ 70°F		INITIAL SURFACE COMPLETION 4.5 inches of asphalt	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Type II/V portland cement			SAMPLING EQUIPMENT Hand Auger			DRILLING METHOD Hand Auger			
Depth Interval	Stratigraphic Name	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a)	Sand (a)	Silt (a)	Clay (a)	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)		
							%	%	%	%	d m m-w w	st mo wk no			
0-1.0	gravel	0.0	x			7.5 YR 2.5/1	85	10	5	-			large gravel 0.5-3.0 inches		
1.0-2.5	weathered serpentine	0.0			x	5 YR 5/1	-	-	-	-	-	-	bedrock		

Soil Sample ID	Collection Time	Soil Sampler
MT-2SB04(2.0)	9:57	Hand Auger

Notes:

Refusal at 2.5 ft bgs due to bedrock.

Notes:
(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples w

SAMPLE LOCATION MT-2SB05						Project: Fuel Distribution System Field Sampling Plan						SOIL SAMPLER Z. Maliga		DATE AND TIME SAMPLED 9/27/07 9:30	
SAMPLE LOCATION DESCRIPTION Along Hoffman St.						Project Number: A70004.16						WEATHER/TEMP foggy/ 70°F		INITIAL SURFACE COMPLETION 10.5 inches of asphalt	
DECONTAMINATION METHOD Triple Rinse				BOREHOLE DIAMETER (inches) 2				BACKFILL FOR BOREHOLES Type II/V portland cement				SAMPLING EQUIPMENT Hand Auger		DRILLING METHOD Hand Auger	
Depth Interval	Stratigraphic Name	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a) %	Sand (a) %	Silt (a) %	Clay (a) %	Moisture		Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)	
											d m m-w w	st mo wk no			
0-1.5	well graded gravel with silt	0.0	x			5 YR 6/1	60	10	20	10	m	no	6 inches of gravel baserock		
1.0-2.5	weathered serpentine	0.0			x	5 YR 5/1	-	-	-	-	-	-	bedrock		

Soil Sample ID	Collection Time	Soil Sampler
MT-2SB05(2.0)	9:36	Hand Auger

Notes:

Refusal at 2.5 ft bgs.

Notes:
(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples w

SAMPLE LOCATION MT-2SB06						Project: Fuel Distribution System Field Sampling Plan						SOIL SAMPLER Z. Maliga		DATE AND TIME SAMPLED 9/27/07 11:25	
SAMPLE LOCATION DESCRIPTION Next to playground.						Project Number: A70004.16						WEATHER/TEMP foggy/ 70°F		INITIAL SURFACE COMPLETION Soil	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Type II/V portland cement					SAMPLING EQUIPMENT Hand Auger		DRILLING METHOD Hand Auger		
Depth Interval	Stratigraphic Name	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a)	Sand (a)	Silt (a)	Clay (a)	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)		
							%	%	%	%	d m m-w w	st mo wk no			
0-2.5	silty sand	0.0			x	10 YR 4/4	-	60	40	-	m	no	stiff at 0.5 ft bgs, loose 0-0.5		

Soil Sample ID	Collection Time	Soil Sampler
MT-2SB06(2.0)	11:37	Hand Auger

Notes:

Refusal at 2 ft bgs.

Notes:

(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples w

SAMPLE LOCATION MT-2SB07						Project: Fuel Distribution System Field Sampling Plan						SOIL SAMPLER S. Gillispie		DATE AND TIME SAMPLED 10/15/07 13:40	
SAMPLE LOCATION DESCRIPTION Along Hoffman St., next to Building 951.						Project Number: A70004.16						WEATHER/TEMP cloudy, rainy		INITIAL SURFACE COMPLETION Soil	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Soil Cuttings			SAMPLING EQUIPMENT Hand Auger			DRILLING METHOD Hand Auger			
Depth Interval	Stratigraphic Name	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a) %	Sand (a) %	Silt (a) %	Clay (a) %	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)		
											d m m-w w	st mo wk no			
0-1.5	sandy silt	NA			x	10 YR 2/2	-	30	50	20	m-w	mo-wk	sandy silt & topsoil with organics; odor from organics		

Soil Sample ID	Collection Time	Soil Sampler
MT-2SB07(1.0)	15:00	Hand Auger

Notes: Refusal at 1.5 ft bgs.

Notes:
(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples w

SAMPLE LOCATION MT-2SB08						Project: Fuel Distribution System Field Sampling Plan						SOIL SAMPLER S. Gillispie		DATE AND TIME SAMPLED 10/15/07 13:40	
SAMPLE LOCATION DESCRIPTION Along Hoffman St., next to Building 951.						Project Number: A70004.16						WEATHER/TEMP cloudy, rainy		INITIAL SURFACE COMPLETION Soil	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Soil Cuttings			SAMPLING EQUIPMENT Hand Auger			DRILLING METHOD Hand Auger			
Depth Interval	Stratigraphic Name	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a) %	Sand (a) %	Silt (a) %	Clay (a) %	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)		
											d m m-w w	st mo wk no			
0-1.5	sandy silt	NA			x	10 YR 2/2	-	30	50	20	m-w	mo-wk	sandy silt with topsoil; orgnaics no odor		

Soil Sample ID	Collection Time	Soil Sampler
MT-2SB08(1.0)	15:10	Hand Auger

Notes: Refusal at 1.5 ft bgs.

Notes:
 (a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples w

SAMPLE LOCATION MT-3SB01						Project: Fuel Distribution System Field Sampling Plan						SOIL SAMPLER S. Gillispie		DATE AND TIME SAMPLED 9/28/07 13:30	
SAMPLE LOCATION DESCRIPTION In the forest, near Building 1255.						Project Number: A70004.16						WEATHER/TEMP cloudy, cool		INITIAL SURFACE COMPLETION Soil	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Type II/V portland cement			SAMPLING EQUIPMENT Hand Auger			DRILLING METHOD Not Applicable			
Depth Interval	Stratigraphic Name	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a) %	Sand (a) %	Silt (a) %	Clay (a) %	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)		
											d m m-w w	st mo wk no			
0-5.0	sandy silt	4.0	x			10 3/5	-	30	70	-	d	no	silt with fine sand, brown; organics		
5.0-5.5	silty sand	0.0			x	10 YR 4/4	-	60	40	-	d	no	v. fine sand		

Soil Sample ID	Collection Time	Soil Sampler
MT-3SB01(2.5)	14:15	Hand Auger
MT-3SB01(4.0) (Hold)	14:18	Hand Auger

Notes:

Poor recovery in sample from 4-4.5 ft bgs because dry sand was difficult to sample with hand auger.

Notes:
(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples w

SAMPLE LOCATION MT-3SB02						Project: Fuel Distribution System Field Sampling Plan						SOIL SAMPLER S. Gillispie		DATE AND TIME SAMPLED 9/28/07 13:30	
SAMPLE LOCATION DESCRIPTION On Armistead Rd., near Building 1255.						Project Number: A70004.16						WEATHER/TEMP cloudy, cool		INITIAL SURFACE COMPLETION Soil	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Type II/V portland cement					SAMPLING EQUIPMENT Hand Auger		DRILLING METHOD Hand Auger		
Depth Interval	Stratigraphic Name	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a)	Sand (a)	Silt (a)	Clay (a)	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)		
							%	%	%	%	d m m-w w	st mo wk no			
0-6.0	sandy silt	0.0	x			10 YR 3/4	5	35	60	-	d	no	trace gravel in first 2 feet		

Soil Sample ID	Collection Time	Soil Sampler
MT-3SB02(2.5)	13:35	Hand Auger

Notes:

Notes:
(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples w

SAMPLE LOCATION MT-3SB03						Project: Fuel Distribution System Field Sampling Plan						SOIL SAMPLER S. Gillispie		DATE AND TIME SAMPLED 9/28/07 11:15	
SAMPLE LOCATION DESCRIPTION On former FDS pipeline, near Building 1299 (Log Cabin).						Project Number: A70004.16						WEATHER/TEMP cloudy, cool		INITIAL SURFACE COMPLETION Soil	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Type II/V portland cement			SAMPLING EQUIPMENT Hand Auger			DRILLING METHOD Hand Auger			
Depth Interval	Stratigraphic Name	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a) %	Sand (a) %	Silt (a) %	Clay (a) %	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)		
											d m m-w w	st mo wk no			
0-3.0	silty sand	0.0	x			10 YR 3/2	-	50	45	5	d	no	fine sand; brown		
3.0-3.5	silt with sand	0.0			x	10 YR 3/2	-	20	50	30	d	no	hard		

Soil Sample ID	Collection Time	Soil Sampler
MT-3SB03(2.0)	11:30	Hand Auger

Notes:

Notes:
(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples w

SAMPLE LOCATION MT-3SB04						Project: Fuel Distribution System Field Sampling Plan						SOIL SAMPLER S. Gillispie		DATE AND TIME SAMPLED 9/28/07 11:15	
SAMPLE LOCATION DESCRIPTION Along former FDS trace, near Building 1299 (Log Cabin).						Project Number: A70004.16						WEATHER/TEMP cloudy, cool		INITIAL SURFACE COMPLETION Soil	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Type II/V portland cement			SAMPLING EQUIPMENT Hand Auger			DRILLING METHOD Not Applicable			
Depth Interval	Stratigraphic Name	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a) %	Sand (a) %	Silt (a) %	Clay (a) %	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)		
											d m m-w w	st mo wk no			
0-3.0	silty sand	0.0	x			10 YR 3/2	5	50	40	5	d	no	trace gravel and clay		
3.0-3.5	silt with sand	0.0			x	10 YR 3/4	-	20	50	30	d	no	fine sand, hard		

Soil Sample ID	Collection Time	Soil Sampler
MT-3SB04(2.0)	11:45	Hand Auger
DUP-1-092807	11:45	Hand Auger

Notes:

Notes:
(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples w

SAMPLE LOCATION MT-3SB05						Project: Fuel Distribution System Field Sampling Plan						SOIL SAMPLER S. Gillispie		DATE AND TIME SAMPLED 9/28/07 11:15	
SAMPLE LOCATION DESCRIPTION Near Building 1299.						Project Number: A70004.16						WEATHER/TEMP cloudy, cool		INITIAL SURFACE COMPLETION Soil	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Type II/V portland cement			SAMPLING EQUIPMENT Hand Auger			DRILLING METHOD Hand Auger			
Depth Interval	Stratigraphic Name	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a) %	Sand (a) %	Silt (a) %	Clay (a) %	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)		
											d m m-w w	st mo wk no			
0-3.0	silt	0.0	x			10 YR 3/1	-	10	60	30	m	no	silt with clay & fine sand; brick frags; brwon		
3.0-5.0	clay with sand	0.0			x	10 YR 3/3	-	20	30	50	m	no	high plasticity		

Soil Sample ID	Collection Time	Soil Sampler
MT-3SB04(4.0)	12:10	Hand Auger

Notes:

Notes:
(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were collected for geotechnical analysis.

SAMPLE LOCATION MT-3SB06						Project: Fuel Distribution System Field Sampling Plan Project Number: A70004.16						SOIL SAMPLER Z. Maliga		DATE AND TIME SAMPLED 9/25/07 14:20	
SAMPLE LOCATION DESCRIPTION In lawn, near Building 1299.												WEATHER/TEMP sunny		INITIAL SURFACE COMPLETION Soil	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Type II/V portland cement					SAMPLING EQUIPMENT Shelby Tube		DRILLING METHOD Direct Push		
Depth Interval	Stratigraphic Name	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a) %	Sand (a) %	Silt (a) %	Clay (a) %	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)		
											d m m-w w	st mo wk no			
0-2.0	silt with sand	0.0			x	10 YR 2/1	-	20	50	30	m	no	topsoil		
2.0-15.5	clay	0.0			x	10 YR 4/2	-	-	10	90	m	no			
15.5 - 18	weathered serpentinite	0.0			x	10 YR 7/8	-	-	-	-	m	no	bedrock		

Soil Sample ID	Collection Time	Soil Sampler
MT-3SB06(12.5)	15:26	Butyrate
MT-3SB06(17.5)	15:45	Butyrate

<p>Notes:</p> <p>Hand augered to 4 ft bgs. Direct push from 4 to 18 ft bgs.</p>
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SAMPLE LOCATION MT-3SB07						Project: Fuel Distribution System Field Sampling Plan						SOIL SAMPLER S. Gillispie		DATE AND TIME SAMPLED 9/28/07 11:15	
SAMPLE LOCATION DESCRIPTION Near Buiding 1299 (Log Cabin).						Project Number: A70004.16						WEATHER/TEMP cloudy, cool		INITIAL SURFACE COMPLETION Soil	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Type II/V portland cement			SAMPLING EQUIPMENT Hand Auger			DRILLING METHOD Hand Auger			
Depth Interval	Stratigraphic Name	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a) %	Sand (a) %	Silt (a) %	Clay (a) %	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)		
											d m m-w w	st mo wk no			
0-4.0	sandy silt	0.0	x			10 YR 3/2	-	40	60	-	m	no	silt with fine sand; dark brown		
4.0-4.5	clay with sand	0.0			x		-	20	30	50	m	no	high plasticity, fine sand		

Soil Sample ID	Collection Time	Soil Sampler
MT-3SB07(2.0)	12:30	Hand Auger

Notes:

Notes:
(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were collected for geotechnical analysis.

SAMPLE LOCATION MT-3SB08						Project: Fuel Distribution System Field Sampling Plan						SOIL SAMPLER S. Gillispie		DATE AND TIME SAMPLED 9/28/07 11:15	
SAMPLE LOCATION DESCRIPTION Near Building 1299 (Log Cabin).						Project Number: A70004.16						WEATHER/TEMP cloudy, cool		INITIAL SURFACE COMPLETION Soil	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Type II/V portland cement			SAMPLING EQUIPMENT Hand Auger			DRILLING METHOD Hand Auger			
Depth Interval	Stratigraphic Name	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a)	Sand (a)	Silt (a)	Clay (a)	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)		
							%	%	%	%	d m m-w w	st mo wk no			
0-3.0	silty sand	0.0	x			10YR 3/1	-	40	60	-	m	no	silt with fine sand; brown; brick fragments		

Soil Sample ID	Collection Time	Soil Sampler
MT-3SB08(2.0)	12:45	Hand Auger

Notes:

Notes:
(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were collected for geotechnical analysis.

SAMPLE LOCATION MT-3SB09						Project: Fuel Distribution System Field Sampling Plan						SOIL SAMPLER S. Gillispie		DATE AND TIME SAMPLED 9/28/07 11:15	
SAMPLE LOCATION DESCRIPTION Near Building 1299 (Log Cabin).						Project Number: A70004.16						WEATHER/TEMP sunny, cool		INITIAL SURFACE COMPLETION Soil	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Type II/V portland cement			SAMPLING EQUIPMENT Hand Auger			DRILLING METHOD Hand Auger			
Depth Interval	Stratigraphic Name	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a)	Sand (a)	Silt (a)	Clay (a)	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)		
							%	%	%	%	d m m-w w	st mo wk no			
0-3.0	silty sand	3.0	x			10 YR 3/2	-	70	30	-	m	no	debris		
3.0-3.5	clay with sand	0.0			x	10 YR 3/3	-	20	30	50	m	no			

Soil Sample ID	Collection Time	Soil Sampler
MT-3SB09(2.0)	13:00	Hand Auger

Notes:

Notes:
(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were collected for geotechnical analysis.

SAMPLE LOCATION MT-4SB01						Project: Fuel Distribution System Field Sampling Plan						SOIL SAMPLER S. Gillispie		DATE AND TIME SAMPLED 9/24/07 9:00	
SAMPLE LOCATION DESCRIPTION Storey Ave., near the Log Cabin						Project Number: A70004.16						WEATHER/TEMP sunny, cool		INITIAL SURFACE COMPLETION Soil	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Type II/V portland cement				SAMPLING EQUIPMENT Hand Auger		DRILLING METHOD Hand Auger			
Depth Interval	Stratigraphic Name	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a)	Sand (a)	Silt (a)	Clay (a)	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)		
							%	%	%	%	d m m-w w	st mo wk no			
0-2.5	silt with sand	0.0	x			10 YR 2/1	-	15	70	15	m-w	no	dark brown, organics, fine sand		

Soil Sample ID	Collection Time	Soil Sampler
MT-4SB01(2.0)	9:20	Hand Auger

Notes:

Notes:
(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were collected for geotechnical analysis.

SAMPLE LOCATION MT-4SB02						Project: Fuel Distribution System Field Sampling Plan						SOIL SAMPLER S. Gillispie		DATE AND TIME SAMPLED 9/24/07 12:15	
SAMPLE LOCATION DESCRIPTION Near Building 1299 (Log Cabin).						Project Number: A70004.16						WEATHER/TEMP sunny, warm		INITIAL SURFACE COMPLETION Soil	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Type II/V portland cement			SAMPLING EQUIPMENT Hand Auger			DRILLING METHOD Hand Auger			
Depth Interval	Stratigraphic Name	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a)	Sand (a)	Silt (a)	Clay (a)	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)		
							%	%	%	%	d m m-w w	st mo wk no			
0-2.5	silt with sand	0.0	x			10 YR 2/1	-	20	70	10	m	no	dark brown; moist; bits of cement		

Soil Sample ID	Collection Time	Soil Sampler
MT-4SB02(2.0)	12:35	Hand Auger

Notes:

Notes:
(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were collected for geotechnical analysis.

SAMPLE LOCATION MT-4SB04						Project: Fuel Distribution System Field Sampling Plan						SOIL SAMPLER S. Gillispie		DATE AND TIME SAMPLED 9/24/07 12:15	
SAMPLE LOCATION DESCRIPTION In lawn, near Storey Ave.						Project Number: A70004.16						WEATHER/TEMP sunny, cool		INITIAL SURFACE COMPLETION Soil	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Type II/V portland cement				SAMPLING EQUIPMENT Hand Auger		DRILLING METHOD Hand Auger			
Depth Interval	Stratigraphic Name	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a)	Sand (a)	Silt (a)	Clay (a)	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)		
							%	%	%	%	d m m-w w	st mo wk no			
0-2.5	poorly graded sand	0.0	x			10 YR 3/4	10	90	-	-	d	no	fine-medium sand; some gravel		

Soil Sample ID	Collection Time	Soil Sampler
MT-4SB04(2.0)	13:10	Hand Auger

Notes:

Notes:
(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were collected for geotechnical analysis.

SAMPLE LOCATION MT-4SB05						Project: Fuel Distribution System Field Sampling Plan						SOIL SAMPLER S. Gillispie		DATE AND TIME SAMPLED 9/24/07 12:15	
SAMPLE LOCATION DESCRIPTION Near Building 1213.						Project Number: A70004.16						WEATHER/TEMP sunny, cool		INITIAL SURFACE COMPLETION Soil	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Type II/V portland cement			SAMPLING EQUIPMENT Hand Auger			DRILLING METHOD Hand Auger			
Depth Interval	Stratigraphic Name	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a) %	Sand (a) %	Silt (a) %	Clay (a) %	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)		
											d m m-w w	st mo wk no			
0-2.5	poorly graded sand	0.0	x			10 YR 3/4	10	90	-	-	d	no	fine to medium sand, no odor		

Soil Sample ID	Collection Time	Soil Sampler
MT-4SB05(2.0)	13:20	Hand Auger

Notes:

Notes:
(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were collected for geotechnical analysis.

SAMPLE LOCATION MT-4SB06						Project: Fuel Distribution System Field Sampling Plan						SOIL SAMPLER S. Gillispie		DATE AND TIME SAMPLED 9/24/07 12:15	
SAMPLE LOCATION DESCRIPTION Storey Ave., near Building 1213						Project Number: A70004.16						WEATHER/TEMP sunny, warm		INITIAL SURFACE COMPLETION Soil	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Type II/V portland cement				SAMPLING EQUIPMENT Hand Auger		DRILLING METHOD Hand Auger			
Depth Interval	Stratigraphic Name	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a)	Sand (a)	Silt (a)	Clay (a)	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)		
							%	%	%	%	Moisture	Odor			
0-2.5	clay with sand	0.0	x			10 YR 4/4	-	70	10	20	m	no	fine to medium sand		

Soil Sample ID	Collection Time	Soil Sampler
MT-4SB06(2.0)	13:30	Hand Auger

Notes:

Notes:
(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were collected for geotechnical analysis.

SAMPLE LOCATION MT-5SB01						Project: Fuel Distribution System Field Sampling Plan						SOIL SAMPLER S. Gillispie		DATE AND TIME SAMPLED 9/24/07 11:30	
SAMPLE LOCATION DESCRIPTION In lawn, near Building 1203.						Project Number: A70004.16						WEATHER/TEMP sunny, warm		INITIAL SURFACE COMPLETION Soil	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Type II/V portland cement				SAMPLING EQUIPMENT Hand Auger		DRILLING METHOD Hand Auger			
Depth Interval	Stratigraphic Name	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a)	Sand (a)	Silt (a)	Clay (a)	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)		
							%	%	%	%	d m m-w w	st mo wk no			
0-5.0	poorly graded sand	0.0			x	10 YR 3/2	-	100	-	-	d	no	sand; brown; trace debris		

Soil Sample ID	Collection Time	Soil Sampler
MT-5SB01(4.5)	11:50	Hand Auger
DUP-2-092407	11:50	Hand Auger

Notes:

Transition from overburden to native not distinguishable.

Notes:
(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were collected for geotechnical analysis.

SAMPLE LOCATION MT-5SB02						Project: Fuel Distribution System Field Sampling Plan Project Number: A70004.16						SOIL SAMPLER S. Gillispie		DATE AND TIME SAMPLED 9/25/07 8:00	
SAMPLE LOCATION DESCRIPTION In woods, near Building 1353.												WEATHER/TEMP sunny, cool		INITIAL SURFACE COMPLETION Soil	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Type II/V portland cement			SAMPLING EQUIPMENT Hand Auger			DRILLING METHOD Hand Auger			
Depth Interval	Stratigraphic Name	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a) %	Sand (a) %	Silt (a) %	Clay (a) %	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)		
											d m m-w w	st mo wk no			
0-8.5	poorly graded sand	0.0			x	10 YR 4/4	-	>95	<5	-	d	no	fine to medium sand, well sorted		
8.5-10.0		0.0			x	10 YR 3/3	-	>95	<5	-	d/m	no			

Soil Sample ID	Collection Time	Soil Sampler
MT-5SB02(9.5)	8:45	Hand Auger

Notes:

Notes:
(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were collected for geotechnical analysis.

SAMPLE LOCATION MT-9SB01						Project: Fuel Distribution System Field Sampling Plan					SOIL SAMPLER S. Gillispie		DATE AND TIME SAMPLED 10/01/07 8:00	
SAMPLE LOCATION DESCRIPTION In forest, near Building 1307.						Project Number: A70004.16					WEATHER/TEMP cloudy, cool		INITIAL SURFACE COMPLETION Soil	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Soil Cuttings					SAMPLING EQUIPMENT Hand Auger		DRILLING METHOD Hand Auger	
Depth Interval	Stratigraphic Name	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a) %	Sand (a) %	Silt (a) %	Clay (a) %	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)	
											d m m-w w	st mo wk no		
0-2-5	sand with silt	0.0	x			10 YR 2/2	5	70	25	-	d	no		

Soil Sample ID	Collection Time	Soil Sampler
MT-9SB01(2.0)	9:00	Hand Auger

Notes:

Notes:
(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were collected for geotechnical analysis.

SAMPLE LOCATION MT-9SB02						Project: Fuel Distribution System Field Sampling Plan						SOIL SAMPLER S. Gillispie		DATE AND TIME SAMPLED 10/01/07 8:00	
SAMPLE LOCATION DESCRIPTION In forest, near Building 1305.						Project Number: A70004.16						WEATHER/TEMP cloudy, cool		INITIAL SURFACE COMPLETION Soil	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Soil Cuttings			SAMPLING EQUIPMENT Hand Auger			DRILLING METHOD Hand Auger			
Depth Interval	Stratigraphic Name	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a) %	Sand (a) %	Silt (a) %	Clay (a) %	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)		
											d m m-w w	st mo wk no			
0-3.0	sandy silt	0.0	x			10 YR 3/2	5	45	50	-	d	no	fine sand; brick fragments		

Soil Sample ID	Collection Time	Soil Sampler
MT-9SB02(2.0)	8:45	Hand Auger

Notes:

Notes:

(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were collected for geotechnical analysis.

SAMPLE LOCATION MT-9SB03						Project: Fuel Distribution System Field Sampling Plan						SOIL SAMPLER S. Gillispie		DATE AND TIME SAMPLED 10/01/07 8:00	
SAMPLE LOCATION DESCRIPTION In forest, near Building 1301.						Project Number: A70004.16						WEATHER/TEMP rain		INITIAL SURFACE COMPLETION Sand	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Soil Cuttings			SAMPLING EQUIPMENT Hand Auger			DRILLING METHOD Hand Auger			
Depth Interval	Stratigraphic Name	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a)	Sand (a)	Silt (a)	Clay (a)	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)		
							%	%	%	%	d m m-w w	st mo wk no			
0-2.5	poorly graded; sand	0.0	x			10 YR 4/4	-	95	<5	<5	d	no	sand; well sorted; organics; brown		

Soil Sample ID	Collection Time	Soil Sampler
MT-9SB03(2.0)	8:25	Hand Auger
DUP-1-100107	8:25	Hand Auger

Notes:

Notes:
(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were collected for geotechnical analysis.

SAMPLE LOCATION MT-10SB01						Project: Fuel Distribution System Field Sampling Plan						SOIL SAMPLER S. Gillispie		DATE AND TIME SAMPLED 10/5/07 16:00	
SAMPLE LOCATION DESCRIPTION Near Park St.						Project Number: A70004.16						WEATHER/TEMP sunny, cool		INITIAL SURFACE COMPLETION Sand	
DECONTAMINATION METHOD Triple Rinse				BOREHOLE DIAMETER (inches) 2				BACKFILL FOR BOREHOLES Soil Cuttings				SAMPLING EQUIPMENT Hand Auger		DRILLING METHOD Hand Auger	
Depth Interval	Stratigraphic Name	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a) %	Sand (a) %	Silt (a) %	Clay (a) %	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)		
											d m m-w w	st mo wk no			
0-1.0	poorly graded sand	0.0	x?			10 YR 3/3	<5	95	<5	-	d	no	fine to medium sand; well sorted		

Soil Sample ID	Collection Time	Soil Sampler
MT-10SB01(0.5)	16:30	Hand Auger

Notes: Near low point of ditch, on steep slope.

Notes:
 (a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were collected for geotechnical analysis.

SAMPLE LOCATION MT-11SB01						Project: Fuel Distribution System Field Sampling Plan						SOIL SAMPLER S. Gillispie		DATE AND TIME SAMPLED 10/5/07 12:40	
SAMPLE LOCATION DESCRIPTION In woods.						Project Number: A70004.16						WEATHER/TEMP sunny, cool		INITIAL SURFACE COMPLETION Soil	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Soil Cuttings			SAMPLING EQUIPMENT Hand Auger			DRILLING METHOD Hand Auger			
Depth Interval	Stratigraphic Name	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a)	Sand (a)	Silt (a)	Clay (a)	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)		
							%	%	%	%	d m m-w w	st mo wk no			
0-2.5	silty sand	0.0	x			10 YR 3/3	-	60	40	-	d	no	fine sand with silt, dark brown		

Soil Sample ID	Collection Time	Soil Sampler
MT-11SB01(2.0)	15:00	Hand Auger

Notes:

Notes:
(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were collected for geotechnical analysis.

SAMPLE LOCATION MT-11SB02						Project: Fuel Distribution System Field Sampling Plan Project Number: A70004.16						SOIL SAMPLER S. Gillispie		DATE AND TIME SAMPLED 10/5/07 12:40	
SAMPLE LOCATION DESCRIPTION In woods.												WEATHER/TEMP sunny, cool		INITIAL SURFACE COMPLETION Soil	
DECONTAMINATION METHOD Triple Rinse				BOREHOLE DIAMETER (inches) 2				BACKFILL FOR BOREHOLES Soil Cuttings				SAMPLING EQUIPMENT Hand Auger		DRILLING METHOD Hand Auger	
Depth Interval	Stratigraphic Name	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a) %	Sand (a) %	Silt (a) %	Clay (a) %	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)		
											d m m-w w	st mo wk no			
0-2.5	poorly graded sand	0.0	x			10 YR 2/2	-	80	20	-	d	no	fine sand with silt; well sorted; brown		

Soil Sample ID	Collection Time	Soil Sampler
MT-11SB02(2.0)	14:45	Hand Auger

Notes:

Moved borehole location approximately 1.5 feet west due proximity to a tree.

Notes:

(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were collected for geotechnical analysis.

SAMPLE LOCATION MT-11SB03						Project: Fuel Distribution System Field Sampling Plan						SOIL SAMPLER S. Gillispie		DATE AND TIME SAMPLED 10/5/07 12:40	
SAMPLE LOCATION DESCRIPTION In woods.						Project Number: A70004.16						WEATHER/TEMP sunny, windy		INITIAL SURFACE COMPLETION Sand	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Soil Cuttings			SAMPLING EQUIPMENT Hand Auger			DRILLING METHOD Hand Auger			
Depth Interval	Stratigraphic Name	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a) %	Sand (a) %	Silt (a) %	Clay (a) %	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)		
											d m m-w w	st mo wk no			
0-2.5	poorly graded sand	0.0	x			10 YR 3/3	<5	95	<5	-	d	no	fine sand; well sorted		

Soil Sample ID	Collection Time	Soil Sampler
MT-11SB03(2.0)	14:25	Hand Auger

Notes:

Notes:
(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were collected for geotechnical analysis.

SAMPLE LOCATION MT-11SB04						Project: Fuel Distribution System Field Sampling Plan						SOIL SAMPLER S. Gillispie		DATE AND TIME SAMPLED 10/5/07 12:40	
SAMPLE LOCATION DESCRIPTION In woods.						Project Number: A70004.16						WEATHER/TEMP sunny, cool		INITIAL SURFACE COMPLETION Soil	
DECONTAMINATION METHOD Triple Rinse				BOREHOLE DIAMETER (inches) 2				BACKFILL FOR BOREHOLES Soil Cuttings				SAMPLING EQUIPMENT Hand Auger		DRILLING METHOD Hand Auger	
Depth Interval	Stratigraphic Name	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a) %	Sand (a) %	Silt (a) %	Clay (a) %	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)		
											d m m-w w	st mo wk no			
0-2.5	poorly graded sand	0.0	x			10 YR 2/2	-	95	5	-	d	no	sand; fine-grained; some silt; well sorted		

Soil Sample ID	Collection Time	Soil Sampler
MT-11SB04(2.0)	14:10	Hand Auger

Notes:

Notes:
(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were collected for geotechnical analysis.

SAMPLE LOCATION MT-11SB05						Project: Fuel Distribution System Field Sampling Plan						SOIL SAMPLER S. Gillispie		DATE AND TIME SAMPLED 10/5/07 12:40	
SAMPLE LOCATION DESCRIPTION In woods.						Project Number: A70004.16						WEATHER/TEMP sunny, cool		INITIAL SURFACE COMPLETION Soil	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Soil Cuttings			SAMPLING EQUIPMENT Hand Auger			DRILLING METHOD Hand Auger			
Depth Interval	Stratigraphic Name	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a)	Sand (a)	Silt (a)	Clay (a)	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)		
							%	%	%	%	d m m-w w	st mo wk no			
0-2.5	silty sand	0.0	x			10 YR 3/2	<5	60	35	<5			sand with silt; fine-gravel; dark brown		

Soil Sample ID	Collection Time	Soil Sampler
MT-11SB05(2.0)	13:42	Hand Auger

Notes:

Notes:
(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were collected for geotechnical analysis.

SAMPLE LOCATION MT-11SB06						Project: Fuel Distribution System Field Sampling Plan						SOIL SAMPLER S. Gillispie		DATE AND TIME SAMPLED 10/5/07 12:40	
SAMPLE LOCATION DESCRIPTION In woods, near Building 421.						Project Number: A70004.16						WEATHER/TEMP sunny, cool		INITIAL SURFACE COMPLETION Soil	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Soil Cuttings			SAMPLING EQUIPMENT Hand Auger			DRILLING METHOD Hand Auger			
Depth Interval	Stratigraphic Name	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a) %	Sand (a) %	Silt (a) %	Clay (a) %	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)		
											d m m-w w	st mo wk no			
0-2.0	sand with gravel	0.0	x			10 YR 4/3	15	70	15	-	d	no	some debris; poorly sorted sand		
2.0-2.5		0.0			x	10 YR 4/3	<5	95	<5	-	d	no			

Soil Sample ID	Collection Time	Soil Sampler
MT-11SB06(1.5)	15:45	Hand Auger
MT-11SB06(2.0)	15:45 (hold)	Hand Auger

Notes:

Moved location to other side of path (~10 feet East) in line with trench.

Notes:
(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were collected for geotechnical analysis.

SAMPLE LOCATION MT-11SB07						Project: Fuel Distribution System Field Sampling Plan						SOIL SAMPLER S. Gillispie		DATE AND TIME SAMPLED 10/5/07 12:40	
SAMPLE LOCATION DESCRIPTION In woods, near Building 421.						Project Number: A70004.16						WEATHER/TEMP sunny, cool		INITIAL SURFACE COMPLETION Sand	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Soil Cuttings			SAMPLING EQUIPMENT Hand Auger			DRILLING METHOD Hand Auger			
Depth Interval	Stratigraphic Name	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a) %	Sand (a) %	Silt (a) %	Clay (a) %	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)		
											d m m-w w	st mo wk no			
0-2.5	poorly graded sand	1.7	x			10 YR 3/3	<5	95	<5	-	d	no	well sorted, fine-medium sand; loose		

Soil Sample ID	Collection Time	Soil Sampler
MT-11SB07(2.0)	13:15	Hand Auger
DUP-1-100507	13:15	Hand Auger

Notes:

Notes:
(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were collected for geotechnical analysis.

SAMPLE LOCATION MT-11SB08						Project: Fuel Distribution System Field Sampling Plan						SOIL SAMPLER S. Gillispie		DATE AND TIME SAMPLED 10/5/07 12:40	
SAMPLE LOCATION DESCRIPTION In woods.						Project Number: A70004.16						WEATHER/TEMP sunny, cool		INITIAL SURFACE COMPLETION Soil	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Soil Cuttings			SAMPLING EQUIPMENT Hand Auger			DRILLING METHOD Hand Auger			
Depth Interval	Stratigraphic Name	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a)	Sand (a)	Silt (a)	Clay (a)	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)		
							%	%	%	%	d m m-w w	st mo wk no			
0-2.5	poorly graded sand	0.0	x			10 YR 3/3	<5	95	<5	-	d	no	well sorted sand; loose		

Soil Sample ID	Collection Time	Soil Sampler
MT-11SB08(2.0)	12:45	Hand Auger

Notes:

Notes:
(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were collected for geotechnical analysis.

SAMPLE LOCATION MT-12SB01						Project: Fuel Distribution System Field Sampling Plan						SOIL SAMPLER S. Gillispie		DATE AND TIME SAMPLED 10/5/07 12:00	
SAMPLE LOCATION DESCRIPTION In woods.						Project Number: A70004.16						WEATHER/TEMP sunny, warm		INITIAL SURFACE COMPLETION Sand	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Soil Cuttings			SAMPLING EQUIPMENT Hand Auger			DRILLING METHOD Hand Auger			
Depth Interval	Stratigraphic Name	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a) %	Sand (a) %	Silt (a) %	Clay (a) %	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)		
											d m m-w w	st mo wk no			
0-2.5	poorly graded sand	0.0	x			10 YR 3/3	<5	95	<5	-	d	no	fine to medium grained, well sorted sand		

Soil Sample ID	Collection Time	Soil Sampler
MT-12SB01(2.0)	12:30	Hand Auger

Notes:

Notes:
(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were collected for geotechnical analysis.

SAMPLE LOCATION MT-12SB02						Project: Fuel Distribution System Field Sampling Plan						SOIL SAMPLER S. Gillispie		DATE AND TIME SAMPLED 10/8/07 10:00	
SAMPLE LOCATION DESCRIPTION In woods, near overexcavation.						Project Number: A70004.16						WEATHER/TEMP cloudy, cool		INITIAL SURFACE COMPLETION Sand	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Soil Cuttings			SAMPLING EQUIPMENT Hand Auger			DRILLING METHOD Hand Auger			
Depth Interval	Stratigraphic Name	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a) %	Sand (a) %	Silt (a) %	Clay (a) %	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)		
											d m m-w w	st mo wk no			
0-2.5	poorly graded sand	0.0	x			10 YR 4/6	-	>95	<5	-	d	no	fine grained, well sorted sand		

Soil Sample ID	Collection Time	Soil Sampler
MT-12SB02(2.0)	10:15	Hand Auger

Notes:

Notes:
(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were collected for geotechnical analysis.

SAMPLE LOCATION MT-12SB03						Project: Fuel Distribution System Field Sampling Plan						SOIL SAMPLER S. Gillispie		DATE AND TIME SAMPLED 9/25/07 13:40	
SAMPLE LOCATION DESCRIPTION In woods, near Building 377.						Project Number: A70004.16						WEATHER/TEMP sunny, warm		INITIAL SURFACE COMPLETION Soil	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Type II/V portland cement			SAMPLING EQUIPMENT Hand Auger			DRILLING METHOD Hand Auger			
Depth Interval	Stratigraphic Name	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a)	Sand (a)	Silt (a)	Clay (a)	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)		
							%	%	%	%	d m m-w w	st mo wk no			
0-3.0	poorly graded sand	0.0	x			10 YR 3/1	-	95	<5	<5	d	no	well sorted, fine gravel		
3.0-4.5	sandy silt	0.0			x	10 YR 5/6	-	30	40	30	d	no	fine sand		

Soil Sample ID	Collection Time	Soil Sampler
MT-12SB03(2.0)	14:00	Hand Auger

Notes:

Notes:
(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were collected for geotechnical analysis.

SAMPLE LOCATION MT-12SB04						Project: Fuel Distribution System Field Sampling Plan					SOIL SAMPLER S. Gillispie		DATE AND TIME SAMPLED 9/25/07 13:40	
SAMPLE LOCATION DESCRIPTION Near Thomas Ave., near Building 378.						Project Number: A70004.16					WEATHER/TEMP sunny, hot		INITIAL SURFACE COMPLETION 6 inches of asphalt	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Type II/V portland cement					SAMPLING EQUIPMENT Hand Auger		DRILLING METHOD Hand Auger	
Depth Interval	Stratigraphic Name	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a)	Sand (a)	Silt (a)	Clay (a)	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)	
							%	%	%	%	d m m-w w	st mo wk no		
0-4.0	silty sand with gravel	0.0	x			10 YR 2/2	35	50	15	-	d	no	fine sand	
4.0-4.5	poorly graded sand	0.0			x	10 YR 2/2	10	80	10	-	m	no	well sorted, fine grained sand	

Soil Sample ID	Collection Time	Soil Sampler
MT-12SB04(2.0)	13:45	Hand Auger

Notes:

Notes:

(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were collected for geotechnical analysis.

SAMPLE LOCATION MT-13SB01						Project: Fuel Distribution System Field Sampling Plan					SOIL SAMPLER S. Gillispie		DATE AND TIME SAMPLED 10/01/07 9:45	
SAMPLE LOCATION DESCRIPTION Along Thomas Ave., near Building 331.						Project Number: A70004.16					WEATHER/TEMP sunny, cool		INITIAL SURFACE COMPLETION 6 inches of asphalt	
DECONTAMINATION METHOD Triple Rinse		BOREHOLE DIAMETER (inches) 2				BACKFILL FOR BOREHOLES Soil Cuttings				SAMPLING EQUIPMENT Hand Auger		DRILLING METHOD Hand Auger		
Depth Interval	Stratigraphic Name	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a) %	Sand (a) %	Silt (a) %	Clay (a) %	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)	
											d m m-w w	st mo wk no		
0-3.5	sand with silt	0.0	x			10YR 2/2	5	35	50	10	d	no	brick fragments	

Soil Sample ID	Collection Time	Soil Sampler
MT-13SB01(2.0)	10:00	Hand Auger
DUP-2-100107	10:00	Hand Auger

Notes:

Notes:
(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were collected for geotechnical analysis.

SAMPLE LOCATION MT-13SB02						Project: Fuel Distribution System Field Sampling Plan						SOIL SAMPLER S. Gillispie		DATE AND TIME SAMPLED 9/26/07 8:15	
SAMPLE LOCATION DESCRIPTION Along Thomas Ave., near Building 333.						Project Number: A70004.16						WEATHER/TEMP sunny, warm		INITIAL SURFACE COMPLETION 6 inches of asphalt	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Type II/V portland cement				SAMPLING EQUIPMENT Hand Auger		DRILLING METHOD Hand Auger			
Depth Interval	Stratigraphic Name	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a)	Sand (a)	Silt (a)	Clay (a)	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)		
							%	%	%	%	d m m-w w	st mo wk no			
0-3.0	silty sand with gravel	0.0	x			10 YR 2/1	25	50	25	-	m	no	sand with gravel & silt; fine sand, M-C gravel; dark brown		

Soil Sample ID	Collection Time	Soil Sampler
MT-13SB02(2.0)	8:30	Hand Auger

Notes:

Notes:
(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were collected for geotechnical analysis.

[illegible]

Soil Sample ID	Collection Time	Soil Sampler
MT-14SB01(2)	11:21	Roger Lion
DUP1-081108	11:21	Roger Lion

Notes:

Notes:

(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were collected for geotechnical analysis.



SAMPLE LOCATION MT-14SB02						Project: Fuel Distribution System Field Sampling Plan				SOIL SAMPLER Roger Lion		DATE AND TIME SAMPLED 8/11/08 11:33	
SAMPLE LOCATION DESCRIPTION West of Bldg. 334						Project Number: A70004.16				WEATHER/TEMP Warm, Sunny		INITIAL SURFACE COMPLETION Asphalt	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Type II/V portland cement				SAMPLING EQUIPMENT Butyrate Liners		DRILLING METHOD Direct Push	
Depth Interval	Stratigraphic Name	OVM	Overburden?	LTPD?	Native?	Munsell Color Code	Gravel (a) %	Sand (a) %	Silt (a) %	Clay (a) %	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)
											d m m-w w	st mo wk no	
0 to 0.33	Asphalt	--	--	--	--	--	--	--	--	--	--	--	
0.33 to 1.25	Clayey Sand	0.0	Y	N	N	10YR 6/3		60		40	d	no	Medium hard
1.25 to 2	Sand	0.0	Y	N	N	10YR 4/4		100		trace	d	no	
2 to 3	Sand	0.0	N	N	Y	10YR 6/5		100			d	no	Trace iron-oxide staining; fairly hard drilling.

Soil Sample ID	Collection Time	Soil Sampler
MT-14SB02(2)	11:33	Roger Lion

Notes:

Notes:

(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were collected for geotechnical analysis.



SAMPLE LOCATION MT-14SB03						Project: Fuel Distribution System Field Sampling Plan					SOIL SAMPLER Roger Lion		DATE AND TIME SAMPLED 8/11/08 11:51	
SAMPLE LOCATION DESCRIPTION West of Bldg. 334						Project Number: A70004.16					WEATHER/TEMP Warm, Sunny		INITIAL SURFACE COMPLETION Asphalt	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Type II/V portland cement					SAMPLING EQUIPMENT Butyrate Liners		DRILLING METHOD Direct Push	
Depth Interval	Stratigraphic Name	OVM	Overburden?	LITD?	Native?	Munsell Color Code	Gravel (a) %	Sand (a) %	Silt (a) %	Clay (a) %	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)	
											d m m-w w	st mo wk no		
0 to 0.75	Asphalt/Base Rock	--	--	--	--	--	--	--	--	--	--	--		
0.75 to 1.75	Sand with Clay	0.0	Y	N	N	10YR 6/4	--	90	--	10	d	no	Sand is fine- to coarse-grained; hard.	
1.75 to 3	Sandstone	0.0	N	N	Y	10YR 6/4	--	100	--	--	d	no	Visible fractures and iron-oxide staining.	

Soil Sample ID	Collection Time	Soil Sampler
MT-14SB03(2)	11:51	Roger Lion

Notes:

Notes:

(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were collected for geotechnical analysis.



SAMPLE LOCATION MT-14SB04						Project: Fuel Distribution System Field Sampling Plan					SOIL SAMPLER Roger Lion		DATE AND TIME SAMPLED 8/11/08 9:29	
SAMPLE LOCATION DESCRIPTION East of Bldg. 334						Project Number: A70004.16					WEATHER/TEMP Warm, Sunny		INITIAL SURFACE COMPLETION Asphalt	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Type II/V portland cement					SAMPLING EQUIPMENT Butyrate Liners		DRILLING METHOD Direct Push	
Depth Interval	Stratigraphic Name	OVM	Overburden?	LTPD?	Native?	Munsell Color Code	Gravel (a) %	Sand (a) %	Silt (a) %	Clay (a) %	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)	
											d m m-w w	st mo wk no		
0 to 0.33	Asphalt	--	--	--	--	--	--	--	--	--	--	--		
0.33 to 2	Sand with Gravel	0.0	Y	N	N	10YR 6/2	30	70	--	--	m	no	Fine- to coarse-grained gravels composed of crushed concrete; color darkens with depth to greyish brown.	

Soil Sample ID	Collection Time	Soil Sampler
MT-14SB04(1.5)	9:29	

Notes:

Notes:

(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were collected for geotechnical analysis.



SAMPLE LOCATION MT-14SB05						Project: Fuel Distribution System Field Sampling Plan					SOIL SAMPLER Adam Abeles		DATE AND TIME SAMPLED 8/12/08 15:59	
SAMPLE LOCATION DESCRIPTION West of Bldg. 381						Project Number: A70004.16					WEATHER/TEMP Warm, Sunny		INITIAL SURFACE COMPLETION Asphalt	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Type II/V portland cement					SAMPLING EQUIPMENT Hand Auger		DRILLING METHOD Hand Auger	
Depth Interval	Stratigraphic Name	OVM	Overburden?	LTPD?	Native?	Munsell Color Code	Gravel (a) %	Sand (a) %	Silt (a) %	Clay (a) %	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)	
											d m m-w w	st mo wk no		
0 to .5	Aphsalt/Base Rock	--	--	--	--	--	--	--	--	--	--	--		
0.5 to 1.25	Clayey Sand	0.0	Y	N	N	10YR 4/3	--	75	--	25	m	no	Fine- to medium-grained sand; slight plasticity.	
1.25 to 3	Sand with Clay	0.0	Y	N	N	10YR 5/4	--	90	--	10	m	no	Fine- to coarse-grained sand; non-plastic.	

Soil Sample ID	Collection Time	Soil Sampler
MT-14SB05(2.5)	15:59	

Notes:

Notes:

(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were collected for geotechnical analysis.

[illegible]

Soil Sample ID	Collection Time	Soil Sampler
MT-14SB06(2.5)	9:50	Roger Lion

Notes:

Notes:

(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were collected for geotechnical analysis.



SAMPLE LOCATION MT-14SB07						Project: Fuel Distribution System Field Sampling Plan					SOIL SAMPLER Adam Abeles		DATE AND TIME SAMPLED 8/13/08 14:20	
SAMPLE LOCATION DESCRIPTION Off Northeast corner of Bldg. 381						Project Number: A70004.16					WEATHER/TEMP Warm, Sunny		INITIAL SURFACE COMPLETION Concrete	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Type II/V portland cement					SAMPLING EQUIPMENT Hand Auger		DRILLING METHOD Hand Auger	
Depth Interval	Stratigraphic Name	OVM	Overburden?	LTPD?	Native?	Munsell Color Code	Gravel (a) %	Sand (a) %	Silt (a) %	Clay (a) %	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)	
											d m m-w w	st mo wk no		
0 to 0.4	Concrete	--	--	--	--	--	--	--	--	--	--	--	Pre-cored.	
0.4 to 2	Clayey Sand	0.0	N	N	Y	10YR 6/3	5	75	--	20	d	no	Soft; loose.	
2 to 3	Sand with Silt	0.0	N	N	Y	10YR 5/4	--	85	--	15	m	no	Loose.	

Soil Sample ID	Collection Time	Soil Sampler
MT-14SB07(2.5)	14:20	Adam Abeles

Notes:

Notes:

(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were collected for geotechnical analysis.



SAMPLE LOCATION MT-14SB08						Project: Fuel Distribution System Field Sampling Plan					SOIL SAMPLER Adam Abeles		DATE AND TIME SAMPLED 8/12/08 16:21	
SAMPLE LOCATION DESCRIPTION Off Southwest corner of Bldg. 382						Project Number: A70004.16					WEATHER/TEMP Warm, Sunny		INITIAL SURFACE COMPLETION Asphalt	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Type II/V portland cement					SAMPLING EQUIPMENT Hand Auger		DRILLING METHOD Hand Auger	
Depth Interval	Stratigraphic Name	OVM	Overburden?	LTPD?	Native?	Munsell Color Code	Gravel (a) %	Sand (a) %	Silt (a) %	Clay (a) %	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)	
											d m m-w w	st mo wk no		
0 to 0.6	Asphalt/Base Rock	--	--	--	--	--	--	--	--	--	--	--		
0.6 to 2	Sand with Clay	0.0	Y	N	Y	10YR 6/3	trace	90	--	10	d	no	Slight plasticity.	

Soil Sample ID	Collection Time	Soil Sampler
MT-14SB08(1.5)	16:21	

Notes:

Notes:

(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were collected for geotechnical analysis.



SAMPLE LOCATION MT-14SB09						Project: Fuel Distribution System Field Sampling Plan					SOIL SAMPLER Adam Abeles		DATE AND TIME SAMPLED 8/12/08 15:35 and 16:00	
SAMPLE LOCATION DESCRIPTION East of Bldg. 336						Project Number: A70004.16					WEATHER/TEMP Warm, Sunny		INITIAL SURFACE COMPLETION Dirt/Grass	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Type II/V portland cement					SAMPLING EQUIPMENT Hand Auger		DRILLING METHOD Hand Auger	
Depth Interval	Stratigraphic Name	OVM	Overburden?	LTPD?	Native?	Munsell Color Code	Gravel (a) %	Sand (a) %	Silt (a) %	Clay (a) %	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)	
											d m m-w w			
0 to 0.25	Top-soil	0.0	N	N	N	10YR 3/2	--	60	40	--	d	no		
0.25 to 2.25	Sandy Silt with Gravel	0.0	N	N	Y	10YR 5/3	10	40	50	--	m	no	Gravels are derived from sandstone.	
2.25-3.5	Clayey Sand	0.0	N	N	Y	10YR 6/4	trace	80	--	20	m	no		
3.5 to 4.75	Sandy Clay	0.0	N	N	Y	10YR 3/3	trace	40	--	60	d	no	Slight plasticity.	
4.75 to 7.5	Sand with Clay	0.0	N	N	Y	10YR 6/4	--	90	--	10	m	no	Medium hard.	

Soil Sample ID	Collection Time	Soil Sampler
MT-14SB09(2.5)	15:35	
MT-14SB09(7)	16:00	

Notes:

Drilling Location moved to Northeast corner of Building 336 due to utilities along east side of building.

Notes:

(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were collected for geotechnical analysis.

[illegible]

Soil Sample ID	Collection Time	Soil Sampler
MT-14SB10(1.5)	8:52	

Notes:

Notes:

(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were collected for geotechnical analysis.

[illegible]

Soil Sample ID	Collection Time	Soil Sampler
MT-14SB11(1.5)	9:04	

Notes:

Notes:

(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were collected for geotechnical analysis.

[illegible]

Soil Sample ID	Collection Time	Soil Sampler
MT-14SB12(3.5)	14:25	Roger Lion

Notes:

Notes:

(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were collected for geotechnical analysis.



SAMPLE LOCATION MT-14SB13						Project: Fuel Distribution System Field Sampling Plan					SOIL SAMPLER Roger Lion		DATE AND TIME SAMPLED 9/28/07 10:58	
SAMPLE LOCATION DESCRIPTION North of Infantry Terrace, South of FM14EX07MW102						Project Number: A70004.16					WEATHER/TEMP Warm, Sunny		INITIAL SURFACE COMPLETION Dirt/Grass	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Hand auger cuttings					SAMPLING EQUIPMENT Hand Auger		DRILLING METHOD Hand Auger	
Depth Interval	Stratigraphic Name	OVM	Overburden?	LTPD?	Native?	Munsell Color Code	Gravel (a) %	Sand (a) %	Silt (a) %	Clay (a) %	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)	
											d m m-w w	st mo wk no		
0 to 2	Sand with Silt	0.0	Y	N	N	10YR 3/2	--	85	15	--	d	no	Fine- to medium-grained sand; loose.	

Soil Sample ID	Collection Time	Soil Sampler
MT-14SB13(1.5)	12:33	Roger Lion

Notes:

Notes:

(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were collected for geotechnical analysis.

[illegible]

Soil Sample ID	Collection Time	Soil Sampler
MT-14SB14(1.5)	12:40	Roger Lion

Notes:

Notes:

(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were collected for geotechnical analysis.

SAMPLE LOCATION MT-15SB01						Project: Fuel Distribution System Field Sampling Plan						SOIL SAMPLER S. Gillispie		DATE AND TIME SAMPLED 9/25/07 11:15	
SAMPLE LOCATION DESCRIPTION Near corner of Arguello Blvd. & Infantry Terrace.						Project Number: A70004.16						WEATHER/TEMP sunny, warm		INITIAL SURFACE COMPLETION Soil	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Type II/V portland cement			SAMPLING EQUIPMENT Hand Auger			DRILLING METHOD Hand Auger			
Depth Interval	Stratigraphic Name	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a)	Sand (a)	Silt (a)	Clay (a)	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)		
							%	%	%	%	d m m-w w	st mo wk no			
0-3.0	silt with sand & clay	4.0				10 YR 4/6	-	15	70	15	d	no	silt; silt with sand & clay; orange brown & clay		

Soil Sample ID	Collection Time	Soil Sampler
MT-15SB01(2.5)	11:35	Hand Auger

Notes:

Notes:
(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were collected for geotechnical analysis.

SAMPLE LOCATION MT-15SB02						Project: Fuel Distribution System Field Sampling Plan						SOIL SAMPLER S. Gillispie		DATE AND TIME SAMPLED 9/28/07 15:45	
SAMPLE LOCATION DESCRIPTION Next to Building 45.						Project Number: A70004.16						WEATHER/TEMP cloudy, cool		INITIAL SURFACE COMPLETION Soil	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Type II/V portland cement			SAMPLING EQUIPMENT Hand Auger			DRILLING METHOD Hand Auger			
Depth Interval	Stratigraphic Name	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a)	Sand (a)	Silt (a)	Clay (a)	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)		
							%	%	%	%	d m m-w w	st mo wk no			
0-3.0	silty sand	3.0	x			10 YR 3/3	10	50	40	-	d	no	sand with silt & gravel; fine sand; gravel; brown		
3.0-4.0	silty sand	4.0			x	10 YR 4/6	-	50	40	10	d	no			

Soil Sample ID	Collection Time	Soil Sampler
MT-15SB02(3.5)	16:00	Hand Auger
DUP-3-092807	16:00	Hand Auger

Notes:

Notes:
(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were collected for geotechnical analysis.

SAMPLE LOCATION MT-15SB03						Project: Fuel Distribution System Field Sampling Plan Project Number: A70004.16						SOIL SAMPLER Z. Maliga		DATE AND TIME SAMPLED 9/28/07 16:00	
SAMPLE LOCATION DESCRIPTION Next to Building 45.												WEATHER/TEMP overcast/ 70°F		INITIAL SURFACE COMPLETION Soil	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Soil Cuttings			SAMPLING EQUIPMENT Hand Auger			DRILLING METHOD Hand Auger			
Depth Interval	Stratigraphic Name	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a) %	Sand (a) %	Silt (a) %	Clay (a) %	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)		
											d m m-w w	st mo wk no			
0-3.5	silt with sand	0.0				10 YR 4/3	-	25	40	35	d-m	no	roots		
3.5-4.0	silt with sand	0.0			x	7.5 YR 4/4	-	f-m 15	60	25	m	no			

Soil Sample ID	Collection Time	Soil Sampler
MT-15SB03(3.5)	16:20	Hand Auger

Notes: Refusal at first attempt due to water pipe at 0.5 ft bgs. Moved borehole one foot towards Building 45.
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Notes:
 (a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were collected for geotechnical analysis.

SAMPLE LOCATION MT-16SB01						Project: Fuel Distribution System Field Sampling Plan					SOIL SAMPLER S. Gillispie		DATE AND TIME SAMPLED 9/28/07 9:00	
SAMPLE LOCATION DESCRIPTION On Mesa St, near Building 19.						Project Number: A70004.16					WEATHER/TEMP sunny, cool		INITIAL SURFACE COMPLETION 6 inches of asphalt	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Type II/V portland cement					SAMPLING EQUIPMENT Hand Auger		DRILLING METHOD Hand Auger	
Depth Interval	Stratigraphic Name	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a)	Sand (a)	Silt (a)	Clay (a)	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)	
							%	%	%	%	d m m-w w	st mo wk no		
0-3.0	silty sand with gravel	0.0	x			10 YR 2/2	30	40	30	-	m	no		
3.0-4.0	sandy silt	0.0			x	10 YR 4/4	-	30	60	10	m	no		

Soil Sample ID	Collection Time	Soil Sampler
MT-16SB01(1.5)	9:10	Hand Auger

Notes:

Notes:
(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were collected for geotechnical analysis.

SAMPLE LOCATION MT-16SB02						Project: Fuel Distribution System Field Sampling Plan						SOIL SAMPLER S. Gillispie		DATE AND TIME SAMPLED 9/28/07 9:00	
SAMPLE LOCATION DESCRIPTION At corner of Mesa St. and Pena St.						Project Number: A70004.16						WEATHER/TEMP sunny, warm		INITIAL SURFACE COMPLETION 5 inches of asphalt	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Type II/V portland cement				SAMPLING EQUIPMENT Hand Auger		DRILLING METHOD Hand Auger			
Depth Interval	Stratigraphic Name	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a)	Sand (a)	Silt (a)	Clay (a)	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)		
							%	%	%	%	d m m-w w	st mo wk no			
0-1.5	poorly graded sand with gravel	3.0	x			10 YR 3/1	40	50	10	-	m	no	medium to coarse sand		
1-3.5	sandy silt	0.0	x			10 YR 2/1	-	40	60	-	m-w	no	fine sand		

Soil Sample ID	Collection Time	Soil Sampler
MT-16SB02(1.5)	9:40	Hand Auger

Notes:

Notes:

(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were collected for geotechnical analysis.

SAMPLE LOCATION MT-16SB03						Project: Fuel Distribution System Field Sampling Plan					SOIL SAMPLER S. Gillispie		DATE AND TIME SAMPLED 9/26/07 9:00	
SAMPLE LOCATION DESCRIPTION At Building 39.						Project Number: A70004.16					WEATHER/TEMP Sunny, cool		INITIAL SURFACE COMPLETION 6 inches of asphalt	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Type II/V portland cement					SAMPLING EQUIPMENT Hand Auger		DRILLING METHOD Hand Auger	
Depth Interval	Stratigraphic Name	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a) %	Sand (a) %	Silt (a) %	Clay (a) %	MT-16SB03	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)	
											d m m-w w			st mo wk no
0-1.0	sand with gravel	3.0	x			7 YR 3/3	30	60	10	-	m	no	some debris	
1.0-4.0	sandy silt	0.0	x?			10 YR 2/1	-	25	60	15	w	no	fine sand, no debris	

Soil Sample ID	Collection Time	Soil Sampler
MT-16SB03(1.5)	10:10	Hand Auger

Notes:

Notes:
(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were collected for geotechnical analysis.

SAMPLE LOCATION MT-17SB01						Project: Fuel Distribution System Field Sampling Plan						SOIL SAMPLER S. Gillispie		DATE AND TIME SAMPLED 9/27/07 9:00	
SAMPLE LOCATION DESCRIPTION Next to Building 38.						Project Number: A70004.16						WEATHER/TEMP sunny, cool		INITIAL SURFACE COMPLETION Soil	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Type II/V portland cement					SAMPLING EQUIPMENT Hand Auger		DRILLING METHOD Hand Auger		
Depth Interval	Stratigraphic Name	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a)	Sand (a)	Silt (a)	Clay (a)	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)		
							%	%	%	%	d m m-w w	st mo wk no			
0-1.5	sandy silt	0.0	x			10 YR 2/2	5	40	50	5	m	no	fine grained sand, poorly sorted		
1.5-3.5	sand with clay	0.0	x			10 YR 4/6	-	65	10	25	m	no	fine sand, medium cementation		

Soil Sample ID	Collection Time	Soil Sampler
MT-17SB01(2.0)	9:30	Hand Auger

Notes:

Notes:
(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were collected for geotechnical analysis.

SAMPLE LOCATION MT-17SB02						Project: Fuel Distribution System Field Sampling Plan Project Number: A70004.16						SOIL SAMPLER S. Gillispie		DATE AND TIME SAMPLED 9/27/07 9:00	
SAMPLE LOCATION DESCRIPTION Aolong Mesa St., near Building 5.												WEATHER/TEMP sunny, cool		INITIAL SURFACE COMPLETION 6 inches of concrete	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Type II/V portland cement					SAMPLING EQUIPMENT Hand Auger		DRILLING METHOD Hand Auger		
Depth Interval	Stratigraphic Name	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a)	Sand (a)	Silt (a)	Clay (a)	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)		
							%	%	%	%	d m m-w w	st mo wk no			
0-2.0	sand with silt and gravel	0.0	x			10 YR 2/2	20	60	20	-	m	no	fine sand; medium gravel		
2.0-3.5	sand with silt	0.0	x			10 YR 4/6	-	65	20	15	m	no	fine sand		

Soil Sample ID	Collection Time	Soil Sampler
MT-17SB02(2.0)	9:50	Hand Auger
DUP-1-092707	9:50	Hand Auger

Notes:

Notes:

(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were collected for geotechnical analysis.

SAMPLE LOCATION MT-17SB03						Project: Fuel Distribution System Field Sampling Plan Project Number: A70004.16	SOIL SAMPLER S. Gillispie				DATE AND TIME SAMPLED 9/27/07 9:00		
SAMPLE LOCATION DESCRIPTION Along Mesa St., near Building 38.							WEATHER/TEMP sunny, Cool				INITIAL SURFACE COMPLETION Soil		
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Type II/V portland cement				SAMPLING EQUIPMENT Hand Auger		DRILLING METHOD Hand Auger	
Depth Interval	Stratigraphic Name	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a)	Sand (a)	Silt (a)	Clay (a)	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)
							%	%	%	%	d m m-w w	st mo wk no	
0-3.5	sandy silt	0.0			x	10 YR 2/2	10	30	60	-	m	no	fine sand
3.5-4.0	silt	0.0			x	10 YR 4/6	5	10	85	-	m	no	fine sand

Soil Sample ID	Collection Time	Soil Sampler
MT-17SB03(2.5)	10:15 (hold)	Hand Auger
MT-17SB03(3.5)	10:20	Hand Auger

Notes:

Notes:
(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were collected for geotechnical analysis.

SAMPLE LOCATION MT-17SB04						Project: Fuel Distribution System Field Sampling Plan						SOIL SAMPLER S. Gillispie		DATE AND TIME SAMPLED 9/27/07 9:00	
SAMPLE LOCATION DESCRIPTION At corner of Mesa St. and Canby St.						Project Number: A70004.16						WEATHER/TEMP sunny, cool		INITIAL SURFACE COMPLETION 6 inches of concrete	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Type II/V portland cement				SAMPLING EQUIPMENT Hand Auger		DRILLING METHOD Hand Auger			
Depth Interval	Stratigraphic Name	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a)	Sand (a)	Silt (a)	Clay (a)	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)		
							%	%	%	%	d m m-w w	st mo wk no			
0-1.5	sand with gravel	0.0	x			10 YR 3/1	20	70	10	-	m	no	well sorted sand		
1.5-2.5	sand with clay	0.0	x			10 YR 3/1	-	60	15	25	m	no	well sorted sand		
2-5-3.0	sand with silt	0.0			x	10 YR 4/6	-	80	15	5	m	no	well sorted sand		

Soil Sample ID	Collection Time	Soil Sampler
MT-17SB04(1.5)	10:40	Hand Auger

Notes:

Notes:
(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were collected for geotechnical analysis.

SAMPLE LOCATION MT-17SB05						Project: Fuel Distribution System Field Sampling Plan						SOIL SAMPLER S. Gillispie		DATE AND TIME SAMPLED 9/27/07 9:00	
SAMPLE LOCATION DESCRIPTION Along Mesa St., next to Building 35.						Project Number: A70004.16						WEATHER/TEMP sunny, cool		INITIAL SURFACE COMPLETION 6 inches of concrete	
DECONTAMINATION METHOD Triple Rinse		BOREHOLE DIAMETER (inches) 2				BACKFILL FOR BOREHOLES Type II/V portland cement				SAMPLING EQUIPMENT Hand Auger		DRILLING METHOD Hand Auger			
Depth Interval	Stratigraphic Name	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a)	Sand (a)	Silt (a)	Clay (a)	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)		
							%	%	%	%	d m m-w w	st mo wk no			
0-3.5	poorly graded sand	8.0	x			10 YR 4/1	10	90	-	-	m	no	fine sand; debris		

Soil Sample ID	Collection Time	Soil Sampler
MT-17SB05(2.0)	11:00	Hand Auger

Notes:

Notes:
(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were collected for geotechnical analysis.

SAMPLE LOCATION MT-17SB06						Project: Fuel Distribution System Field Sampling Plan						SOIL SAMPLER S. Gillispie		DATE AND TIME SAMPLED 9/27/07 9:00	
SAMPLE LOCATION DESCRIPTION Along Mesa St., next to Building 35.						Project Number: A70004.16						WEATHER/TEMP sunny, cool		INITIAL SURFACE COMPLETION 6 inches of concrete	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Type II/V portland cement				SAMPLING EQUIPMENT Hand Auger		DRILLING METHOD Hand Auger			
Depth Interval	Stratigraphic Name	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a)	Sand (a)	Silt (a)	Clay (a)	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)		
							%	%	%	%	d m m-w w	st mo wk no			
0-4.0	silty sand with gravel	0.0	x			10 YR 2/1	15	50	20	15	m	no	poorly sorted		

Soil Sample ID	Collection Time	Soil Sampler
MT-17SB06(2.0)	11:20	Hand Auger

Notes:

Notes:
(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were collected for geotechnical analysis.

SAMPLE LOCATION MT-17SB07						Project: Fuel Distribution System Field Sampling Plan						SOIL SAMPLER S. Gillispie		DATE AND TIME SAMPLED 9/27/07 9:00	
SAMPLE LOCATION DESCRIPTION Along Mesa St., near Building 35.						Project Number: A70004.16						WEATHER/TEMP sunny, cool		INITIAL SURFACE COMPLETION Soil	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Type II/V portland cement					SAMPLING EQUIPMENT Hand Auger		DRILLING METHOD Hand Auger		
Depth Interval	Stratigraphic Name	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a)	Sand (a)	Silt (a)	Clay (a)	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)		
							%	%	%	%	d m m-w w	st mo wk no			
0-2.5	sandy silt	0.0	x			10 YR 2/1	-	30	60	10	m	no	fine sand		

Soil Sample ID	Collection Time	Soil Sampler
MT-17SB07(2.0)	11:45	Hand Auger

Notes:

Refusal at 2.5 ft bgs.

Notes:

(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were collected for geotechnical analysis.

SAMPLE LOCATION MT-17SB08						Project: Fuel Distribution System Field Sampling Plan						SOIL SAMPLER S. Gillispie		DATE AND TIME SAMPLED 9/27/07 9:00	
SAMPLE LOCATION DESCRIPTION At corner of Lincoln Blvd. and Mesa St.						Project Number: A70004.16						WEATHER/TEMP fog, cool		INITIAL SURFACE COMPLETION soil/lawn	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Type II/V portland cement					SAMPLING EQUIPMENT Hand Auger		DRILLING METHOD Hand Auger		
Depth Interval	Stratigraphic Name	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a)	Sand (a)	Silt (a)	Clay (a)	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)		
							%	%	%	%	d m m-w w	st mo wk no			
0-4.0	sandy silt	0.0	x			10 YR 3/4	-	30	60	10	m	no			

Soil Sample ID	Collection Time	Soil Sampler
MT-17SB08(2.0)	12:10	Hand Auger

Notes:

Notes:
(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were collected for geotechnical analysis.

SAMPLE LOCATION MT-17SB09						Project: Fuel Distribution System Field Sampling Plan						SOIL SAMPLER S. Gillispie		DATE AND TIME SAMPLED 9/27/07 9:00	
SAMPLE LOCATION DESCRIPTION At corner of Lincoln Blvd. and Mesa St.						Project Number: A70004.16						WEATHER/TEMP fog, cool		INITIAL SURFACE COMPLETION Soil	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Type II/V portland cement				SAMPLING EQUIPMENT Hand Auger		DRILLING METHOD Hand Auger			
Depth Interval	Stratigraphic Name	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a)	Sand (a)	Silt (a)	Clay (a)	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)		
							%	%	%	%	d m m-w w	st mo wk no			
0-3.5	silt with sand	0.0	x			10 YR 3/4	-	20	70	10	d-m	no	organics		
3.5-9.0	sandy silt	0.0	x			10 YR 5/6	-	40	50	10	d-m	no	fine sand		

Soil Sample ID	Collection Time	Soil Sampler
MT-17SB09(2.0)	12:30	Hand Auger

Notes:

Notes:

(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were collected for geotechnical analysis.

SAMPLE LOCATION MT-17SB10						Project: Fuel Distribution System Field Sampling Plan						SOIL SAMPLER S. Gillispie		DATE AND TIME SAMPLED 9/27/07 9:00	
SAMPLE LOCATION DESCRIPTION Near corner of Lincoln Blvd and Mesa St.						Project Number: A70004.16						WEATHER/TEMP foggy, cool		INITIAL SURFACE COMPLETION Soil	
DECONTAMINATION METHOD Triple Rinse			BOREHOLE DIAMETER (inches) 2			BACKFILL FOR BOREHOLES Type II/V portland cement					SAMPLING EQUIPMENT Hand Auger		DRILLING METHOD Hand Auger		
Depth Interval	Stratigraphic Name	OVM	Overburden?	LTTD?	Native?	Munsell Color Code	Gravel (a)	Sand (a)	Silt (a)	Clay (a)	Moisture	Odor	ADDITIONAL DESCRIPTION and NOTES (e.g. historical mat'ls, staining, odors, paleosols, plant mat'l, contacts, bedding details, gleying, fractures, clast lithology, weathering / alteration)		
							%	%	%	%	d m m-w w	st mo wk no			
0-3.0	sandy silt	0.0	x			10 YR 2/1	-	30	60	10	m	no	organics		
3.0-3.5	sandy silt	0.0	x			10 YR 5/6	-	45	50	5	m	no	fine sand		

Soil Sample ID	Collection Time	Soil Sampler
MT-17SB10(2.0)	12:45	Hand Auger

Notes:

Notes:
(a) Relative percentages were determined in the field, and represent the judgement of EKI field personnel at the time of sampling. They are estimated for determination of Unified Soil Classification System ("USCS") designation only. No samples were collected for geotechnical analysis.